

# Receiving Report

Date: 15-05-12Batch No: 132256Supplier: KLXDart P/O: 28407

Packing Slip: Yes  No   
Invoice: Yes  No   
Receipt: Cash  Cr   
New Supplier Yes  No

Release Note Attached: Yes  No  N/A   
Waybill Attached: Yes  No   
Shipment Complete: Yes  No  N/A   
QC18 Inspection \_\_\_\_\_  
Work Order \_\_\_\_\_

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

Production/Admin:

Date \_\_\_\_\_

Location \_\_\_\_\_

Received/Costing \_\_\_\_\_

Initial \_\_\_\_\_



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO28407**

Purchase Order Date 5/8/2015  
PO Print Date 5/8/2015

Page Number 1 of 7

Order From : VU-KLX01  
  
KLX INC.  
88289 EXPEDITE WAY  
CHICAGO, IL 33172  
USA

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

MAR 08 2015

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	305-925-2600	Customer POID	
Ship To Contact		Customer Tax #	10127-2607
Ship To Phone		Terms	Net 30
Ship Via:	FedEx Overnight collect	Currency	USD
Ship Acct:		FOB	Destination-Collect

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments							
Delivery Comments							
1	MS20601-AD4W2	Rivet	5/11/2015 Yes 5/11/2015	Promise Date	200.00 Each	\$0.17	\$34.00
2	MS24693-24B	Screw	5/11/2015 Yes 5/11/2015	FN	300.00 Each	\$0.15	\$45.00
3	MS21075L5	Nut Plate	5/11/2015 Yes 5/11/2015	300.00 Each	\$1.60	\$480.00	

Note:



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## PURCHASE ORDER

Purchase Order ID **PO28407**

Purchase Order Date 5/8/2015

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Page Number 2 of 7

**Order From :**

KLX INC.  
88289 EXPEDITE WAY  
CHICAGO, IL 33172  
USA

VU-KLX01

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone** 305-925-2600

**Buyer** Chantal Lavoie

**Ship To Contact**

**Ship To Phone**

**Ship Via:** FedEx Overnight collect

**Customer POID**

**Customer Tax #** 10127-2607

**Terms** Net 30

**Currency** USD

**FOB** Destination-Collect

**Ship Acct:**

**Line Total:** \$480.00

4	AN924-6J	NUT	5/11/2015	20.00	✓	\$2.00	\$40.00
			Yes	Each			
			5/11/2015				

**Line Total:** \$40.00

5	NAS43DD3-128	Spacer	5/11/2015	10.00	✓	\$1.50	\$15.00
			Yes	Each			
			5/11/2015				

NAS43DD-128FC ACCEPTABLE

**Line Total:** \$15.00

6	NAS1149D0663J	Washer	5/11/2015 FN	1,000.00	✓	\$0.05	\$50.00
			Yes	Each			
			5/11/2015				

260A

SP15-05-12

**Line Total:** \$50.00

**Note:**



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Page Number 3 of 7

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88289 EXPEDITE WAY  
CHICAGO, IL 33172  
USA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
**Vendor Phone** 305-925-2600

**Buyer** Chantal Lavoie

**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** FedEx Overnight collect  
**Ship Acct:**

**Customer POID**

10127-2607

**Customer Tax #**

Net 30

**Terms**

USD

**Currency**

FOB

Destination-Collect

7	NAS1149D0563J	Washer	5/11/2015	FN Yes	1,000.00 Each	\$0.04	\$40.00
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260A

**Line Total:** \$40.00

8	MS27039C1-08	SCREW	5/11/2015		500.00 Each	\$0.32	\$160.00
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✓

**Line Total:** \$160.00

9	MS21060-3K	Nut Plate	5/11/2015		150.00 Each	\$1.37	\$205.50
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✓

**Line Total:** \$205.50

10	MS21060-L3K	Nut Plate	5/11/2015		100.00 Each	\$1.05	\$105.00
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✓

SPKS-05-12

Note:



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Purchase Order Date 5/8/2015  
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Page Number 4 of 7

Order From : VU-KLX01

Ship To : DART AEROSPACE LTD

KLX INC.  
88289 EXPEDITE WAY  
CHICAGO, IL 33172  
USA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
**Vendor Phone** 305-925-2600  
  
**Ship To Contact**  
**Ship To Phone**  
**Ship Via:** FedEx Overnight collect  
**Ship Acct:**

**Buyer** Chantal Lavoie  
**Customer POID**  
**Customer Tax #** 10127-2607  
**Terms** Net 30  
**Currency** USD  
**FOB** Destination-Collect

				<b>Line Total:</b>	\$105.00
11	MS20427M3-3	Rivet	5/11/2015 Yes 5/11/2015	500.00 ✓ Each	\$0.04 \$20.00 ✓
				<b>Line Total:</b>	\$20.00
12	MS20600-AD4W4	Rivets	5/11/2015 Yes 5/11/2015	1,000.00 ✓ Each	\$0.17 \$170.00 ✓
				<b>Line Total:</b>	\$170.00
13	MS20601-AD4W3	Rivet	5/11/2015 Yes 5/11/2015	400.00 ✓ Each	\$0.22 \$88.00 ✓
				<b>Line Total:</b>	\$88.00

Note:



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Purchase Order Date 5/8/2015  
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CHICAGO, IL 33172  
USA

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
Vendor Phone 305-925-2600

Buyer Chantal Lavoie

Ship To Contact  
Ship To Phone  
Ship Via: FedEx Overnight collect  
Ship Acct:

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB Destination-Collect

14	MS20601-AD4W8	RIVET	5/11/2015	200.00	\$0.25	\$50.00
			Yes	Each		
			5/11/2015			

Line Total: \$50.00

15	MS21042L5	Nut	5/11/2015 FN	200.00	\$0.45	\$90.00
			Yes	Each		
			5/11/2015			

Line Total: \$90.00

16	CR3523-4-02	RIVET	5/11/2015	400.00	\$0.95	\$380.00
			Yes	Each		
			5/11/2015			

Line Total: \$380.00

17	MS51957-45B	Screw	5/11/2015 FN	50.00	\$0.40	\$20.00
			Yes	Each		
			5/11/2015			

Note:

SPS-05-D



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Page Number 6 of 7

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CHICAGO, IL 33172  
USA

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	305-925-2600	Customer POID	
Ship To Contact		Customer Tax #	10127-2607
Ship To Phone		Terms	Net 30
Ship Via:	FedEx Overnight collect	Currency	USD
Ship Acct:		FOB	Destination-Collect

					Line Total:	\$20.00
18	MS51957-48B	Screw	5/11/2015 FN Yes 5/11/2015	50.00 Each	\$0.70 ✓	\$35.00 ✓
19	MS51957-49B	Screw	5/11/2015 FN Yes 5/11/2015	50.00 Each	\$1.00 ✓	\$50.00 ✓
					Line Total:	\$35.00
					Line Total:	\$50.00

*SP 15-05-18*

Note:



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXaerospace.com  
 Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001  
 Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York  
 ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER

HZNZMA

PAGE 1 OF 6

SOLD TO:  
002409

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
	PO28407	05/08/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK-ORDER	SHIPPED	AMOUNT
1	200	MS20601AD4W2 RIVET, BLIND ECCN :9A991 TARIFF: 7616.10.3000	0.170	EA	200	0	0.00
2	300	MS24693-24B SCREW ECCN :9A991 Country Origin: USA TARIFF: 7318.15.6080 MFR: NORTH EAST FASTENERS CORP CTRL# : 2014F00696 LOT# : 52960 LOT QTY: 300 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.150	EA	0	300	45.00
3	300	MS21075L5 LOCKNUT, PLATE - TWO LUG ECCN :9A991 Country Origin: USA TARIFF: 7318.16.0085 MFR: ALCOA KAYNAR FULLERTON CTRL# : 2010J06026 LOT# : 5346033-000 LOT QTY: 300 COUNTRY OF ORIGIN: USA Country of Origin: USA	1.600	EA	0	300	480.00
4	20	AN924-6J NUT, FITTING ECCN :9A991 Country Origin: USA TARIFF: 7318.16.0085	2.000	EA	0	20	40.00
***CONTINUED***							

MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

*SPI505-D*

## ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:  
<http://www.KLXaerospace.com/conditions-sale/>



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HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
5	10	MFR: INLAND MACHINE CTRL# : 2015D22337 LOT# : 8361 LOT QTY: 20 COUNTRY OF ORIGIN: USA Country of Origin: USA NAS43DD3-128FC SPACER, SLEEVE-SCREW ECCN :9A991 TARIFF: 7616.10.9090	1.500	EA	10	0		
6	1000	NAS1149D0663J WASHER, FLAT ECCN :9A991 Country Origin: USA TARIFF: 7616.10.9090 MFR: ANILLO INDUSTRIES CTRL# : 2014H03618 LOT# : X9492 LOT QTY: 1000 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.050	EA	0	1000	50.00	
8	500	MS27039C1-08 SCREW ECCN :9A991 Country Origin: USA TARIFF: 7318.15.6080 MFR: MAC FASTENERS CTRL# : 2015D30688 LOT# : 72807 LOT QTY: 500 COUNTRY OF ORIGIN: USA	0.320	EA	0	500	160.00	

\*\*\*CONTINUED\*\*\*

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SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

SP5-05-10

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 Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York  
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INVOICE NUMBER

HZNZMA

PAGE 3 OF 6

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002409  
 DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS			SHIPPING TERMS	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
9	150	Country of Origin: USA MS21060-3K LOCKNUT, PLATE - TWO LUG ECCN :9A991 Country Origin: MEXICO TARIFF: 7318.16.0060 MFR: ALCOA KAYNAR FULLERTON CTRL# : 2011A06325 LOT# : 5340465-000 LOT QTY: 150 COUNTRY OF ORIGIN: MX Country of Origin: MEXICO		1.370	EA	0	150 ✓	205.50 ✓
10	100	MS21060L3K LOCKNUT, PLATE - TWO LUG ECCN :9A991 Country Origin: MEXICO TARIFF: 7318.16.0085 MFR: ALCOA KAYNAR FULLERTON CTRL# : 2008C04655 LOT# : 5277262-000 LOT QTY: 100 COUNTRY OF ORIGIN: MX Country of Origin: MEXICO		1.050	EA	0	100 ✓	105.00 ✓
11	500	MS20427M3-3 RIVET ECCN :9A991 Country Origin: USA TARIFF: 7508.90.5000 MFR: ALLFAST FASTENING CTRL# : 2015A12899 LOT# : S141208005K		0.040	EA	0	500 ✓	20.00 ✓

\*\*\*CONTINUED\*\*\*

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CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
12	1000	LOT QTY: 500 COUNTRY OF ORIGIN: USA Country of Origin: USA MS20600AD4W4 RIVET, BLIND ECCN :9A991 Country Origin: USA TARIFF: 7616.10.3000 MFR: CHERRY AEROSPACE SANTA AN CTRL# : 2015B21073 LOT# : 88034150 LOT QTY: 1000 COUNTRY OF ORIGIN: USA Country of Origin: USA		0.170	EA	0	1000	170.00
13	400	MS20601AD4W3 RIVET, BLIND ECCN :9A991 Country Origin: USA TARIFF: 7616.10.3000 MFR: CHERRY AEROSPACE SANTA AN CTRL# : 2014I25084 LOT# : 87836273 LOT QTY: 400 COUNTRY OF ORIGIN: USA Country of Origin: USA		0.220	EA	0	400	88.00
15	200	MS21042L5 LOCKNUT ECCN :9A991 Country Origin: MEXICO TARIFF: 7318.16.0085 MFR: ALCOA FASTENING/REPUBLIC		0.450	EA	0	200	90.00

\*\*\*CONTINUED\*\*\*

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 Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001  
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PAGE 5 OF 6

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CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
16	400	CTRL# : 2014I12280 LOT# : 51693 LOT QTY: 200 COUNTRY OF ORIGIN: MX Country of Origin: MEXICO CR3523-4-02 CR MAX RIVET ECCN :EAR99 Country Origin: USA TARIFF: 7318.23.0000 MFR: CHERRY AEROSPACE SANTA AN CTRL# : 2012G27852 LOT# : 87680508 LOT QTY: 400 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.950	EA	0	400 ✓	380.00	
18	50	MS51957-48B SCREW ECCN :9A991 Country Origin: USA TARIFF: 7318.15.6080 MFR: NORTH EAST FASTENERS CORP CTRL# : 2015C30559 LOT# : 54945 LOT QTY: 50 COUNTRY OF ORIGIN: USA Country of Origin: USA	0.700	EA	0	50 ✓	35.00	
19	50	MS51957-49B SCREW ECCN :9A991 Country Origin: USA	1.000	EA	0	50 ✓	50.00	
								***CONTINUED***

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DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO28407		05/08/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
jus form	9NJZY6 #16007.000303	TARIFF: 7318.15.6080 MFR: CRESCENT MFG. CTRL# : 2014I11283 LOT# : 85366 LOT QTY: 50 COUNTRY OF ORIGIN: USA Country of Origin: USA  <i>These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.</i>  <b>*** SHIPPED 1 CTN ***</b> <b># 1=CTN 19# 0 OZ. 638393476207</b> <b>FREIGHT ACCT# 15179324-0</b>					SUBTOTAL : 1,918.50 HANDLING : 0.00 DISC/ALL : 0.00 INCM FRT : 0.00 FREIGHT : 0.00  <b>TOTAL :</b> 1,918.50USD <b>U.S. CURRENCY</b>

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INVOICE NUMBER

HZP1HL

PAGE 1 OF 2

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002409

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1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
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HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS			SHIPPING TERMS	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
1	200	MS20601AD4W2 RIVET, BLIND ECCN :9A991 TARIFF: 7616.10.3000		0.170	EA	200	0	0.00 ✓
5	10	NAS43DD3-128FC SPACER, SLEEVE-SCREW ECCN :9A991 Country Origin: USA TARIFF: 7616.10.9090 MFR: MINI MAC CTRL# : 2013G06717 LOT# : 0081288 LOT QTY: 10 COUNTRY OF ORIGIN: USA Country of Origin: USA		1.500	EA	0	10 ✓	15.00 ✓
<p><i>These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.</i></p> <p><i>SOP 05/10</i></p>								

\*\*\*CONTINUED\*\*\*

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ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

### ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:  
<http://www.KLXaerospace.com/conditions-sale/>



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXaerospace.com  
 Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001  
 Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York  
 ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER

HZP1HL

PAGE 2 OF 2

SOLD TO:

002409  
 DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO28407		05/08/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
	# 1=CTN	2# 0 OZ. 638393478460 FREIGHT ACCT# 15179324-0 TEL# 613-632-3336  DIMENSIONS: 9X12X1					
dxr	9NJZY6	SHIPPED ON 05/08/15					SUBTOTAL : 15.00
form	#16007.000303	**CONSOLIDATION# 1BFE01					HANDLING : 0.00
							DISC/ALL : 0.00
							INCM FRT : 0.00
							FREIGHT : 0.00
							TOTAL : 15.00USD
							U.S. CURRENCY

MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.

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SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

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 ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER

HZNZM9

PAGE 1 OF 2

SOLD TO:  
002409

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS			SHIPPING TERMS	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
7	1000	NAS1149D0563J WASHER, FLAT ECCN :9A991 Country Origin: USA TARIFF: 7616.10.9090 MFR: ANILLO INDUSTRIES CTRL# : 2011G11960 LOT# : V7583 LOT QTY: 1000 COUNTRY OF ORIGIN: USA Country of Origin: USA		0.040	EA	0	1000	40.00
14	200	MS20601AD4W8 RIVET, BLIND ECCN :9A991 Country Origin: USA TARIFF: 7616.10.3000 MFR: CHERRY AEROSPACE SANTA AN CTRL# : 2007G05159 LOT# : 86737839 LOT QTY: 200 COUNTRY OF ORIGIN: USA Country of Origin: USA		0.250	EA	0	200	50.00
		<i>These commodities, technology or software were    exported from the United States in accordance    with the Export Administration Regulations.    Diversion contrary to U.S. law is prohibited.</i>						

\*\*\*CONTINUED\*\*\*

MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172

## ORIGINAL INVOICE

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<http://www.KLXaerospace.com/conditions-sale/>



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • [www.KLXaerospace.com](http://www.KLXaerospace.com)  
**Remit to Address:** 88289 Expedite Way, Chicago, IL 60695-0001  
**Wire Instructions:** KLX Inc. • JPMorgan Chase Bank New York  
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

**INVOICE NUMBER**

HZNZM9

PAGE 2 OF 2

SOLD TO: 002409

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

**SHIP TO:**

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS		
PO28407		05/08/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
		FREIGHT ACCT# 15179324-0						
jus form	9NK132 #16007.000303	SHIPPED ON 05/08/15 **CONSOLIDATION# 1BFBAV					SUBTOTAL : HANDLING : DISC/ALL : INCM FRT : FREIGHT :  TOTAL : U.S. CURRENCY	90.00 0.00 0.00 0.00 0.00  90.00USD U.S. CURRENCY

**MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.**

**ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.**

**SHIPPED FROM:** 10000 NW 15 TERRACE, MIAMI, FL 33172

**ORIGINAL INVOICE**

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<http://www.KLXaerospace.com/conditions-sale/>



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXAerospace.com  
 Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001  
 Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York  
 ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER
HZNYOL
PAGE 1

SOLD TO:

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7



SHIP TO:

DART AEROSPACE LTD  
 1270 ABERDEEN ST  
 HAWKESBURY, ON  
 CANADA K6A 1K7

ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
17	50	MS51957-45B TARIFF: 7318.15.6080 Description SCREW ECCN : 9A991 MFR: CRESCENT MFG. CTRL#: 2006B02041 LOT#: 38231 LOT QTY: 50 Country of Origin USA	0.400	EA	0	50 ✓	20.00 ✓

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 exported from the United States in accordance  
 with the Export Administration Regulations.  
 Diversion contrary to U.S. law is prohibited.

\*\*\*CONTINUED\*\*\*

MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 650 LONGBEACH BLVD, STRATFORD, CT 06615

**MATERIAL CERTIFICATION:** KLX INC. ("KLX AEROSPACE SOLUTIONS") WARRANTS THAT THE ITEMS SUBJECT OF THIS INVOICE WILL BE FREE FROM DEFECTS OF MATERIAL AND WORKMANSHIP, AND, AS SET FORTH ON THE MATERIAL CERTIFICATION FORM ACCOMPANYING THE ITEMS SUBJECT OF THIS INVOICE, ARE IN CONFORMITY WITH ALL CURRENT GOVERNMENTAL REQUIREMENTS AND THE SPECIFICATIONS OF THE RESPECTIVE MANUFACTURERS. KLX AEROSPACE SOLUTIONS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. THE LIABILITY OF KLX AEROSPACE SOLUTIONS IS EXPRESSLY LIMITED EXCLUSIVELY TO REPLACEMENT BECAUSE OF A DEFECT IN MATERIAL OR WORKMANSHIP SUCH REPLACEMENT SHALL OF ANY ITEM WHICH IS REJECTED CONSTITUTE SATISFACTION OF ALL LIABILITY. KLX AEROSPACE SOLUTIONS MAY HAVE IN CONNECTION WITH SUCH ITEM, WHETHER LIABILITY IS BASED UPON CONTRACT RIGHTS, NEGLIGENCE, OR OTHERWISE, AND IN NO EVENT SHALL KLX AEROSPACE SOLUTIONS BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES. FURTHER, KLX AEROSPACE SOLUTIONS MUST BE NOTIFIED OF A REJECTION OF AN ITEM WITHIN 30 DAYS AFTER RECEIPT BY THE CUSTOMER.

## PACKING SLIP

Vice President of Quality

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS PACKING SLIP, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:  
<http://www.KLXAerospace.com/conditions-sale/>





Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • [www.KLXaerospace.com](http://www.KLXaerospace.com)  
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001  
Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York  
A: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

**INVOICE NUMBER**

HZNYOL

PAGE 2

SOLD TO:  
F-002409



DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

**SHIP TO:**

DART AEROSPACE LTD  
1270 ABERDEEN ST  
HAWKESBURY, ON  
CANADA K6A 1K7

**MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.**

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**SHIPPED FROM: 650 LONGBEACH BLVD, STRATFORD, CT 06615**

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## **PACKING SLIP**

Vice President of Quality

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS PACKING SLIP, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:  
<http://www.KLXaerospace.com/conditions-sale/>





P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

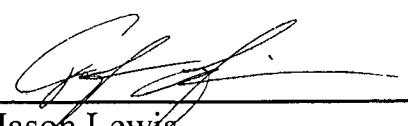
### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
12	1000	EA	MS20600AD4W4		88034150	CHERRY AEROSPACE SAN 11815			

  
Jason Lewis  
Senior Director, Global Quality  
05/08/15



**CHERRY®**  
AEROSPACE  
• SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



# PACKING LIST

Order No: S0382389  
Order Date: 03/12/14  
Print Date: 02/10/15

Page: 1

Sold-To: 10015341

Ship-To: 10043053

S O L D T O	KLX INC 10000 NW 15TH TERRACE MIAMI, FL 33172 USA
----------------------------	--

S H I P T O	KLX AEROSPACE SOLUTIONS KLX INC. 9835 NW 14TH ST MIAMI, FL 33172 USA
----------------------------	--

Salesperson (s):110

Purchase Order: OWWT96

Credit Terms: NET 30  
Net 30

Ship Via: FED EX NATIONAL CL  
FOB: Origin - Collect

#### Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0  
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE  
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS  
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

\*\*\*\*\*  
BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114  
\*\*\*\*\*

GOODS OF UNITED STATES ORIGIN

ECCN: EAR99

\*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I  
\*PREFERENCE FOR DOMESTIC SPECIALTY METALS

RELEASE# V1030WWT96

Unless otherwise specified on this order, Cherry will manufacture and certify parts to the part number's latest revision. Latest revisions are shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under "Part Number Revision List".

INCORRECT AND UNAVAILABLE PART NUMBERS WILL BE LINED OUT ON PO  
CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY  
IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Ln	Item Number	Site T Location/Lot/Serial	Qty Open	Promised
			Qty to Ship	UM Shipped
2	CR9163-4-04	1600	EA	03/06/15

**TEST REPORTS ENCLOSED DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

Packing List



**CHERRY®**  
**AEROSPACE**  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



## PACKING LIST

Order No: SO382389  
Order Date: 03/12/14  
Print Date: 02/10/15

Page: 2

Sold-To: 10015341

Ship-To: 10043053

S	KLX INC
O	10000 NW 15TH TERRACE
L	MIAMI, FL 33172
D	USA

S	KLX AEROSPACE SOLUTIONS
H	KLX INC.
I	9835 NW 14TH ST
P	MIAMI, FL 33172
T	USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
2	CR9163-4-04 Customer Item: MS20600AD4W4 	B0603 88034150	18900.0	( )	

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DO NOT DESTROY**

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**CHERRY®**  
AEROSPACE  
• SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



# PACKING LIST

Order No: SO382389  
Order Date: 03/12/14  
Print Date: 02/10/15

Page: 1



Ship-To: 10043053

S O L D  T O	KLX INC 10000 NW 15TH TERRACE MIAMI, FL 33172 USA
--------------------------------	--

S H I P  T O	KLX AEROSPACE SOLUTIONS KLX INC. 9835 NW 14TH ST MIAMI, FL 33172 USA
--------------------------------	--

Salesperson (s): 110

Credit Terms: NET 30  
Net 30

Purchase Order: 0WWT96

Ship Via: FED EX NATIONAL CL  
FOB: Origin - Collect

#### Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0  
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE  
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS  
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

\*\*\*\*\*  
BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114  
\*\*\*\*\*

#### GOODS OF UNITED STATES ORIGIN

ECCN: EAR99

\*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT 1  
\*PREFERENCE FOR DOMESTIC SPECIALTY METALS

\*\*\*\*\*  
RELEASE# VIO30WWT96  
\*\*\*\*\*

Unless otherwise specified on this order, Cherry will manufacture and  
certify parts to the part number's latest revision. Latest revisions are  
shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under  
"Part Number Revision List".

\*\*\*\*\*  
INCORRECT AND UNAVAILABLE PART NUMBERS WILL BE LINED OUT ON PO  
CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY  
IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Ln	Item Number	Site T Location/Lot/Serial	Qty Open	Promised
			Qty to Ship	UM Shipped
2	CR9163-4-04	1600	EA	03/06/15

**TEST REPORTS ENCLOSED DO NOT DESTROY**

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#### CERTIFICATION

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

#### ATTENTION: PURCHASING DEPARTMENT

#### Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY®**

AEROSPACE

&gt; SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA

**PACKING LIST**

Order No: SO382389  
Order Date: 03/12/14  
Print Date: 02/10/15

Page: 2



Ship-To: 10043053

S	KLX INC
O	10000 NW 15TH TERRACE
L	MIAMI, FL 33172
D	USA
T	
O	

S	KLX AEROSPACE SOLUTIONS
H	KLX INC.
I	9835 NW 14TH ST
P	MIAMI, FL 33172
T	USA
O	

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
2	CR9163-4-04 Customer Item: MS20600AD4W4 	B0603 88034150	18900.0	( )	

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**CERTIFICATION****ATTENTION: PURCHASING DEPARTMENT**

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**Quality Assurance Representative**

Signed

  
SIM NGUYEN



**1224 East Warner Avenue  
Santa Ana, CA 92707-0157**

**1224 East Warner Avenue  
Santa Ana, CA 92707-0157**



Chemical Processing  
Heat Treating  
ISO/IEC 17025  
Material Testing Lab

## **Final Inspection & Test Report**

### **Cherry® Rivet**

An ISO9001 and AS9100 registered company. OASIS #6111041606

Part Numbers	Rev	Proc. Spec.	Rev
CR9163-4-04	K	MIL-R-7885	D2

\*\* See 2nd Page for the Customer Parts

Lot I.D. No.:	<b>88034150</b>
Lot Size:	<b>19,000</b>
MFG. Date:	<b>February 09, 2015</b>

## **ASSEMBLY DATA**

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	88034150	A75148	2117 ALUM ALLOY	MIL-C-5541	Par-90
Stem	87927994	A74944	2017 ALUM ALLOY	MIL-C-5541	Par-90

W.O. #: 5566707

**Final Lube:** None

## **QUALITY CONFORMANCE/ACCEPTANCE RESULTS**

	INSTALLED SHEAR		SPINDLE RETENTION	
MIN REQ'D	370		15	
SAMPLE SIZE	9		9	
SPECS			UnLocked	
RESULTS	504	505	55	58
	499		38	
	502		33	
	497		59	
	492		37	
	499		45	
	499		29	
LOAD VALUES IN POUNDS	490		61	

<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>	<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>
<u>20</u>	EXAMINATION	<u>PASS</u>	<u>13</u>	INSTALLATION (Min and Max Grips)	<u>PASS</u>

**Comments:**

## **Blind Fastener**

Tr. Rev.

3/9/2015

## Inspector

Impostos

A circular library stamp with a double-line border. Inside, the letter 'T' is at the top, 'ACC' is in the center, and '374' is at the bottom.

Insp. Control #:

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.  
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

# BENEKE

## Product Certification And Testing Report

**Customer:**

CHERRY AEROSPACE LLC  
 ATTN: ACCTS. PAYABLE  
 1224 EAST WARNER AVENUE  
 P.O. BOX 2157  
 SANTA ANA CA 92707-0157

Date >> 7/7/2014

Customer PO No.	BWC Lot No.:	Date Shipped:
PO167334	26389	7/7/2014
Cust Item ID : M262.1230		

BWC Item No.  
 2H1230813041A01

Description:  
 .123" DIA. +/- .0005" 4F 2117 - H13  
 #4 FINISH, ALUMINUM COLD HEADING WIRE X 22"  
 BLOCKWOUND 100# COILS.

Specifications:

CUST SPEC	M-262	REV. F
FED SPEC	QQ-A-430	REV. C

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	Test Results				
													Diameter (in)	Tensile (psi)	Yield (psi)	Peak Load (lbs)	
2117	.8	.7	2.2 - 3.0	.20	.20 - .50	.10	.25		.05	.15					Grain Size		
851963	.39	.40	2.8	.14	.40	.06	.11						42647-1	230	0.1230	29,740.0	353.4

Total Weight: .230

A75148



Beneke Wire Company -  
 851963



JUL 16 2014

**Beneke Wire Company**

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

Authorized  
Signature

Shannon King, Plant Metallurgist

Phone: (502) 367-6434



*Best in Class*

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC  
600 Kaiser Drive  
Heath, OH 43056-1088  
740-522-1151

### Miscellaneous Notes

Made in USA

Chemical exceptions Fe 0.30-0.7 Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-11. The Newark facility is AS9100C:2009 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).

The products you inquired and ordered are not governed by any applicable industry standard or custom specifications. They are produced, tested and released as such. By placing an order, you acknowledge and accept the full responsibility and liability for their fitness for the intended end use or end uses.

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLP ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

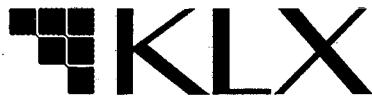
Steven J. Tua, Technical Manager

JUL 16 2014



A75148

Plant Serial: 33279  
Kaiser Order Number: 172555318  
Line Item: 1



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

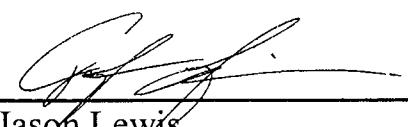
### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
19	50	EA	MS51957-49B		85366	CRESCENT MFG.	63020		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

Nº 85366

# CERTIFICATE OF COMPLIANCE TEST REPORT

FORM REV A 11/09

MADE IN THE U.S.A.

CUSTOMER NAME B/E AEROSPACE CONSUMABLES

PART NO. MS51957-49B\* REV D/A1

PURCHASE ORDER NO. 0YSF16

INTERNAL ROUTING NO. 37295

QUANTITY FIVE THOUSAND

MATERIAL/SPECIFICATION .152 302SS TRI STAR E131615

DATE 8/21/2014

PARTS CONTAINED IN THIS SHIPMENT HAVE BEEN MANUFACTURED AND  
INSPECTED IN ACCORDANCE WITH APPLICABLE DRAWINGS AND  
SPECIFICATIONS.

PHYSICAL PROPERTIES  
TENSILE STRENGTH HARDNESS SCALE

- |                |    |
|----------------|----|
| 1) 1558.0 LB T | 1) |
| 2) 1556.0 LB T | 2) |
| 3) 1551.0 LB T | 3) |
| 4) 1561.0 LB T | 4) |
| 5) 1557.0 LB T | 5) |
| 6)             | 6) |
| 7)             | 7) |
| 8)             | 8) |

CONFORMS TO THE PROCUREMENT SPECIFICATIONS OF:

FF-S-92B

DFARS 252.225-7009

OTHER MECHANICAL TEST DATA

- MEET MAGNETIC PERMEABILITY REQUIREMENTS OF  
FF-S-92B, MIL-I-17214B, AND ASTM A342/A 342M TEST  
METHOD 3.

PARTS ARE FREE FROM MERCURY AND ASBESTOS CONTAMINATION.  
VISUAL AND DIMENSIONAL INSPECTION SATISFACTORY

FINISH

BLACK OXIDE PER MIL-DTL-13924D CLASS 4

INSPECTED TO ZERO ACCEPTANCE SAMPLE / INDEX VALUE 2.5

ADDITIONALLY, AN ANSI/ASQC Z 1.4 SAMPLE OF THE  
FINISHED FASTENERS WERE TESTED IN ACCORDANCE WITH  
APPLICABLE SPECIFICATIONS. SAMPLE PARTS AND THE TEST DATA  
ARE IN OUR RECORDS RETENTION AREA AS OBJECTIVE EVIDENCE  
AND WILL BE HELD AS REQUIRED.

CRESCENT MANUFACTURING OPERATING, CO.



Signature \_\_\_\_\_

TRACEY NIKSA, QC TECH

Cage Code #63020  
700 George Washington Turnpike, Burlington, CT 06013, U.S.A.  
Telephone: (860) 673-2591 Fax: (860) 673-5973

Stavenson Road  
Sheffield, S9 3XG  
Telephone: +44 (0) 114 242 1124  
Fax: +44 (0) 114 242 2162



Test certificate No  
No du certificat **79342**

In Accordance With EN 10204.3.1

Rechnungs-Nr Invoice/Cos No No de facture		Bestell-Nr Customer Order No No de commande client		NORM 302HQ Stainless Revision 0, 5/31/2011		SPECIFICATION SOFTENED AND DESCALING 5.50 mm Round 3 rod coils for 1.947t		NORME AV201658/01 SOFTENED AND DESCALÉE 5.50 mm Round 3 bobines de 1.947t				
ADDRESS  Tri Star Metals LLC 611 W.Lamm Rd Freeport, Illinois 61032 USA 61032												
Schmelzanalyse		Cast Analysis		Analysse de Coulée								
%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Mn	%Ti	%Nb	%Cu	%B	
0.0140	0.2570	0.6200	0.0270	0.0010	17.7300	0.2600	9.5600	0.0030	0.0170	0.0060	0.0003	
%Co	%Cu	%Ni	%Mn	%V	%W	%Mo	%Co	%Ti	%Nb	%Cu	%B	
0.1540	3.5740	0.0080	0.0220	0.0900	0.0400	0.0070	0.0012	0.0020	0.0004			
Mech und phys Eigenschaften												
Mechanical and Physical Properties												
Caractéristiques mécanique												
0.2%P8 kPSI	1.0%P8 kPSI	UTS kPSI	Dehnung % Elongation % Allongement %	RAT%	Korngröße Grain Size Taille du grain	Härte Härte Dureté	Hb	Charpy (J)	Ferrite Content %	Schaeffler Ferrite %		
28.532	34.374	69.473	38.0	78.1	6.0 5.0		126.00					
De Long Ferrite %	WRC 1992 Ferrite %	H800 02%P8	H800 UTS	H800 A4D	H800 RA	H800 Hardness	Cleanness	Intercrystalline Corrosion Test				
Bend	Ovality	Microstructure	OK	Macrostructure								
Additional Information												
Chemistry, melt practice, material integrity and capability of meeting spec chemistries: - ASME/ASTM A483 Grade XM-7, QQ-S 783 Chemistry to UNS S30430 (18-8LW) & S30433 (302HQ) Material melted and rolled in Sheffield, England by Outokumpu Stainless Ltd. Melting Practice:- EAF & AOD												
EHSQ Manager  Rob Charlesworth												
Datum Date Date <b>10/12/2013</b>												
This order was manufactured according to a Quality System registered to ISO 9001:2008 and approved by TÜV Nord. Certificate Registration No. 44 100 116408												

Quality evaluated by quality manager Z. Zayi analysis  
Productivity when made when by process P&I the product was not manufactured unacceptably  
Safety: no safety issues by technology Standard  
Delivery: delivery date was met  
Customer satisfaction: customer satisfied with the product and service  
Performance: all parts of the specification met or exceeded the required level of performance  
Communication: the communication between customer and supplier was good and timely  
Delivery: delivery date was met  
Quality: quality of the product was acceptable and met the requirements of the specification  
Cost: cost was competitive with the requirements of the order and specification. Order cost relevant  
and has no additional charge. Only the additional required and paid premium components are counted for the requirements of cost and delivery.

Qualität geprüft durch Qualitätsträger Z. Zayi analysis  
Produktivität, wenn hergestellt durch Prozess P&I, wurde kein Produkt unzureichend hergestellt  
Sicherheit: keine Sicherheitsprobleme durch Technologie Standard  
Lieferzeit: Liefertermintreue  
Zufriedenheit des Kunden: der Kunde war mit dem Produkt und Service zufrieden  
Leistungsfähigkeit: alle Teile der Spezifikation entsprachen oder übertreffen die geforderten Leistungsniveaus  
Kommunikation: die Kommunikation zwischen Kunde und Lieferant war gut und zeitlich  
Lieferzeit: Liefertermintreue  
Qualität: Qualität des Produkts war akzeptabel und entsprach den Anforderungen der Spezifikation  
Kosten: Kosten waren im Vergleich zu den Anforderungen der Spezifikation günstig  
Zusätzlich zu den oben aufgelisteten Qualitätsmerkmalen sind die folgenden Qualitätsmerkmale erfüllt:

Qualität nachgewiesen durch Qualitätsträger Z. Zayi analysis  
Produktivität, wenn hergestellt durch Prozess P&I, wurde kein Produkt unzureichend hergestellt  
Sicherheit: keine Sicherheitsprobleme durch Technologie Standard  
Lieferzeit: Liefertermintreue  
Zufriedenheit des Kunden: der Kunde war mit dem Produkt und Service zufrieden  
Leistungsfähigkeit: alle Teile der Spezifikation entsprachen oder übertreffen die geforderten Leistungsniveaus  
Kommunikation: die Kommunikation zwischen Kunde und Lieferant war gut und zeitlich  
Lieferzeit: Liefertermintreue  
Qualität: Qualität des Produkts war akzeptabel und entsprach den Anforderungen der Spezifikation  
Kosten: Kosten waren im Vergleich zu den Anforderungen der Spezifikation günstig  
Zusätzlich zu den oben aufgelisteten Qualitätsmerkmalen sind die folgenden Qualitätsmerkmale erfüllt:

**CRESCENT MFG  
T.R. NO. 853466**

Telephone (413)533-6927

Fax (413)534-5652

# BAY STATE PLATING, INC.

*Specialists in Black Oxide on Steel, Stainless Steel and Brass*

•18 NORTH BRIDGE STREET • P.O. BOX 187 • HOLYOKE, MA. 01040

## CERTIFICATE OF COMPLIANCE

CRESCENT MANUFACTURING CO.  
(CUSTOMER)

37295  
(ORDER NUMBER)

700 GEO. WASHINGTON TPK.  
(STREET ADDRESS)

MSS1957-49B  
(PART NUMBER)

BURLINGTON, CT. 06013  
(CITY AND STATE)

153153  
(SHIPMENT NUMBER)

7,000 pcs.  
(QUANTITY SHIPPED)

Aug. 15, 2014  
(DATE OF CERTIFICATION)

### (CERTIFICATE OF COMPLIANCE)

It is hereby certified that all articles included in the above shipment and the quantities as called for in the above shipments of the contractors purchase order are in conformance with the requirements, specifications, and drawings applicable to that order. Black Oxide Finished Per Mil-DTL-13924D Cl. 4. & Smut Test Per 4.4.1 & Salt Spray Test Per ASTM B-117.

BAY STATE PLATING, INC.

(WITNESS)

  
(SIGNATURE OF OFFICIAL)

TIMOTHY D. ROBERTS  
PRESIDENT

CRESCEANT MFG  
T.R. NO. 85366



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
18	50	EA	MS51957-48B		54945	NORTH EAST FASTENERS	07ZNS		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

Inv # 05/08/15

**North East Fasteners Cor**  
 8 Tremco Dr. - P.O. Box 322  
 Terryville, CT 06786  
 Phone: (860) 589-3242  
 Fax: (860) 589-6969  
 Web: <http://www.nef1.com>  
 E-Mail: nef@nef1.com



<b>Invoice</b>	
<b>Date</b>	<b>Invoice No.</b>
03/24/2015	58666

### Packing Slip

**Sold To:** KLX Aerospace Solutions  
 10000 NW 15th Terr  
 Miami, Florida 33172

**Ship To:** KLX Aerospace Solutions  
 9835 NW 14th St  
 Miami, Florida 33172

**Customer:**

PO#: 0ZYF257

**Shipments :**

**Ship Via:** FED EX

<b>Boxes</b>	<b>Weight</b>
2	58 Lbs

<b>Description</b>	<b>Complete</b>	<b>Lot#</b>	<b>Qty.</b>	<b>Price</b>	<b>Ext. Price</b>
8-32 x 7/8" Phillips Pan MS (2A) 302HQ Stainless DFARS Compliant Black Oxide Mil-DTL-13924D CL 4 - MS51957-48B - D/1	Yes	54945	10.3 M		
					<b>Subtotal :</b>
					<b>Shipping :</b>
					<b>Total :</b>

Made in USA

NEF requires receipt of a Customer Debit Memo prior to issuing any credits. Please reference your P/O #, Invoice # and our RMA # on the Debit Memo.

Government Cage Code: 07ZN5

QSLM Level 2/3



Telephone:  
(860) 589-3242

Fax:  
(860) 589-6969

Web-Site: [www.NEF1.com](http://www.NEF1.com)  
E-mail: nef@NEF1.com

# CERTIFICATE OF CONFORMANCE

*This certifies that these fasteners are in conformance to the specifications required for this order and that these fasteners sold by North East Fasteners Corporation were manufactured at 8 Tremco Dr., Terryville, CT 06786 U.S.A.*

## Customer Order Information

Name :	KLX Aerospace Solutions	
Ship Date:	03/24/2015	NEF Part #:
P.O. #:	0ZYF257	Heat #:
Qty Shipped:	10.300 m	Lot #:
Descr: 8-32 x 7/8" Phillips Pan MS (2A) 302HQ Stainless DFARS Compliant Black Oxide Mil-DTL-13924D CL 4		
DFARS PER: 252.225-7014 ALT 1		

## Specifications

IFI		ISO	
Customer Print		DIN	
Metric IFI		JIS	
<b>Other Specifications</b>			
DFARS CERT 252.225-7009			
Print # : MS51957-48B REV D/1			
Part # : MS51957-48B REV D/1			
Desc :			
Dual :			
Passed Magnetic Permeability, This certifies that these fasteners are in conformance with the EU RoHS & WEEE Directives.			

Mark Soria



\* This product has been mfg. in an environment free from contamination by Mercury or any of its compounds.



QSLM Level 2/3  
Cage code: 07ZN5



Telephone:  
(860)-589-3242  
Fax:  
(860)-589-6969  
Website: www.nefl.com  
e-mail: nef@nefl.com

PO Number: 0ZYF257

Lot Number: 54945

Date: 03/09/2015

Heat Number: N1W1

Lot Size: 11.00

Specs: MS51957

Description: 8-32 x 7/8" Phillips Pan MS (2A) 302HQ Stainless DFARS Compliant Black Oxide Mil-DTL-13924D CL 4

### Axial Tensile Results

Requirements : 1120 Lbs Min

Sample	Ultimate Tensile Strength (Lbs)
1	1434
2	1447
3	1440
4	1447
5	1437
6	1453
7	1430
8	1434

Joe Longo

Quality Control Manager



All tests listed on this certification have been performed in accordance with the required specifications named above. Calibrations are in accordance with ISO10012-1. The analysis reported on this certification is in accordance with North East Fasteners Quality Manual guidelines and methods.

UniMetal Surface Finishing, LLC.  
15 East Waterbury Road  
Naugatuck, CT 06770  
Phone:(203) 729-8244 Fax:(203) 729-8487  
[www.unimetal.com](http://www.unimetal.com)

**ISO 9001:2008 Registered**



1209837
02/27/15
1

NORTH EAST FASTENERS  
8 TREMCO DRIVE  
TERRYVILLE, CT 06786

NORTH EAST FASTENERS  
8 TREMCO DRIVE  
TERRYVILLE, CT 06786  
Phone: (860) 589-3242  
Fax: (860) 589-6969

**Certificate of Compliance**

We hereby certify that all articles furnished in the quantities stated, as called for, have been inspected and tested and are in conformance with all applicable drawings, specifications and requirements of the said purchase order.

Part Number	Description	Quantity Shipped
11000 58 Lbs	8-32X7/8"PHILLIPS PAN MS (2A) 302 STAINLESS STEEL SCREW Specs: BLACK OXIDE & OIL / MIL-DTL-13924D, CLASS 4 Mil-Specs: MIL-DTL-13924D / BLACK OXIDE P.O.#: 23110 Job #: 259245 Lot #: 54945 Containers: 2 PANS	11000 58 Lbs
<p>The above order has been processed to:</p> <p>Black oxide finish per MIL-DTL-13924D, Class 4</p> <p>Please note: This is a RoHS compliant coating and is in compliance with Directive 2011/65/EU of the European Parliament and the Council of 8 January 2011 on the restriction of the use of certain hazardous substances in electrical and electronics equipment (RoHS Directive) in accordance with the definitions set forth in the directives.</p> <p>We certify that the information supplied is a true copy of our record and will be retained in our files for a period of not less than eleven years.</p>		

**MATERIAL CERTIFICATION***An ISO 9001:2008 Registered Company*

611 W. Lamm Rd. Freeport, Illinois 61032

QSD-007 Rev 6 (04/16/2014)

<b>CERTIFICATE DATE:</b>	1/28/15	<b>CUSTOMER:</b>	NORTH EAST FASTENERS
<b>ORDER#:</b>	215977	<b>CUSTOMER PO#:</b>	5122014MVL
<b>MATERIAL:</b>	302HQ	<b>DESCRIPTION:</b>	.140"
<b>HEAT NUMBER:</b>	N1W1	<b>QTY. SHIPPED:</b>	2,384 LBS
<b>CONDITION:</b>	AIP-TRI-COAT SOAP		

**CHEMICAL COMPOSITION (WEIGHT PERCENT)**

C	Mn	Si	S	P	Ni	Cr	Mo	Other Elements
.019	1.59	.32	.001	.033	9.63	17.67	.29	-
Cu	Co	N	Fe	Al	Nb(Cb)	Ta	Ti	-
3.21	.15	.026	-	-	-	-	-	-

**MECHANICAL VALUES**

ULTIMATE TENSILE STRENGTH (KSI)	0.2% OFFSET YIELD STRENGTH (KSI)	ELONGATION (%) (IN 2")	RED. OF AREA (%)	HARDNESS
85	75	39	84	172HB

**ADDITIONAL REMARKS:**

This material meets the chemistry specifications for:

ASTM A555/05, ASTM A493/95 (CHEM ONLY). DFARS COMPLIANT.

MELT ORIGIN: USA

**MATERIAL IS MANUFACTURED IN THE UNITED STATES OF AMERICA**

QUALITY REPRESENTATIVE: Katherine Cholke  
 Katherine Cholke - Certification Specialist

• When shipped, Material is free from MERCURY, other LOW TEMPERATURE MELTING ELEMENTS and RADIOACTIVE (Radium, Alpha and Gamma source) Contamination.
• We certify that the above information is correct as contained in the records of the company. All Y.S.A.d. certifications apply only to the Raw Material aspects of any. Purchase Order, Drawing, Specification, and Standard. Any reference to Finished Product is not applicable to T.S.M., whether listed or implied herein.
• Material complies with Section 1502 of Dodd Frank, Conflict Minerals, Final Rule, August 22, 2012, II.A.3, II.B.c.i.v
• Certificate of test is prepared in accordance with paragraph 5.1 of EN 10204 (DIN 50049). We certify that the test data included herein are in accordance with the purchase order and specification requirements as documented in this certificate of tests. Test methods are per the ASTM standards on file and in effect at the time of order acceptance, standard practices, or as agreed upon between Tri Star Metals and Customer.
• The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal Statutes including Federal Law Title 18, Chapter 47. This document may not be reproduced, except in full, without the written consent of Tri Star Metals, LLC.

**TRI STAR METALS, LLC**

1201 S. ADAMS  
FREEPORT, IL 61032  
Phone: 888-850-2210 Fax:  
Website: [www.tristarmetals.com](http://www.tristarmetals.com)

January 27, 2015

5:26:11PM

Page 1 of 1

**Shipper No. 215977**

Bill To

NORTH EAST FASTENERS  
8 TREMCO DR.  
TERRYVILLE, CT 06786

Ship To NORTH EAST FASTENERS  
8 TREMCO DR.  
TERRYVILLE, CT 06786

Attn: 860-589-3242

Terms: 1/2% 10 NET 30

Customer P.O. Number: 5122014MVL

F.O.B.: DELIVERED

Ship Via: BEST

Sales 1: CHRIS S 18

Sales 2:

Sales Order No: 215977

Due Date: 10/10/20

Ship Qty	UM	Description	Width	Length	Weight
2,384.00	P	.140" RD 302HQ SS TRI-COAT X CL (AIP)			2,384.00

2,384.00	Totals	2,384.00
----------	--------	----------

**Shipping Instructions:**

Receiving Hours:

Max Bundle Weight: 0

Spacers:

Carrier \_\_\_\_\_

Date \_\_\_\_\_

Pieces \_\_\_\_\_

Driver Sig \_\_\_\_\_

Consignee Sig\_\_\_\_\_

**Messages:**



Page

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

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**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
4	20	EA	AN924-6J		8361	INLAND MACHINE	6W617		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

Inv # 05/08/15

**INLAND  
MACHINE COMPANY**

10762 EDISON COURT  
RANCHO CUCAMONGA, CA 91730

(909) 484-5579

FAX (909) 484-4825

**Invoice**

To:  
**KLX AEROSPACE**  
**P.O. BOX 025263**  
**MIAMI, FL 33102**

**Ship To:**  
**KLX AEROSPACE**  
**9835 NW 14TH ST.**  
**MIAMI, FL 33172**

**Invoice Date: 4/16/2015**      **Terms: 2 % 10 NET 30**  
**Order Date: 5/28/2014**      **Cust. PO#: 0YKH34**  
**Ship Data: 4/16/2015**      **FOB:**  
**Sales Order: 0YKH34**      **Buyer:**  
**Customer #: KLX.**

**Weight:**  
**# of Boxes:**  
**Shipment #: 1**

**Ship Via: FED EX GRND**  
**Ship Via Acc: 0331-0149-0**  
**Invoice #: 45796**

<b>Item</b>	<b>Part Number/Description</b>	<b>Shipped</b>	<b>BackOrd CD</b>	<b>Unit Price</b>	<b>Total Amt</b>
-------------	--------------------------------	----------------	-------------------	-------------------	------------------

**2 AN924-6J NUT REV.11**  
**FULL CERTS**

**5380 5104 NE**

**JOB # 8361**

**PARTS ARE DFAR COMPLIANT**

**MADE IN USA**

**PACKING LIST**

**ALL PAST DUE ACCOUNTS SHALL BEAR INTEREST**  
**AT THE RATE OF 1 1/2 % PER MONTH.**

THIS IS TO CERTIFY THAT ALL ARTICLES DELIVERED UNDER THIS  
SHIPPER, CONFORMS TO ALL APPLICABLE BLUE PRINT SPECIFICATION.  
AND EVIDENCE OF SUCH IS ON FILE SUBJECT TO EXAMINATION

*Russell* 4-16-15

It is agreed by buyer that upon delivery of parts, said will be inspected and that if any parts are defective buyer agrees to notify seller within ten (10) days limitation. Buyer agrees that it waives all rights to any damages and credits against any amount due.

# INLAND MACHINE COMPANY

MANUFACTURING AN-MS-NAS HYDRAULIC FITTINGS

## MANUFACTURER'S AFFIDAVIT

I, RONALD DORFF  
(Name) hereby certify that the below named parts

were manufactured by INLAND MACHINE COMPANY  
(Company Name)

10762 EDISON COURT RANCHO CUCAMONGA CA 91730  
(Street Address) (city) (State) Zip Code

Part No.	Part Description
AN924-6J	NUT REV II
JOB # 8361	

I further certify that should any change in the manufacturing process occur which changes  
the country of origin; I will immediately notify KLX Aerospace Solutions. In writing and  
provide a new Manufacturer's Affidavit.

  
(Signature)

QUALITY CONTROL MANAGER  
(Title)

4/16/15  
(Date)

THIS DOCUMENT IS INTENDED ONLY FOR THE USE OF THE PERSON(S) TO WHOM IT IS ADDRESSED, IT MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If you are not the intended recipient, any dissemination, distribution, copying or other use of this document is strictly prohibited. If you have received this communication in error, please notify us by telephone 305.925.2600 to arrange for the destruction or return to us of original document.

10762 EDISON COURT - RANCHO CUCAMONGA, CA 91730 - 909-484-5579 - FAX 909-484-4825  
EMAIL: [garcia@inlandaerospace.com](mailto:garcia@inlandaerospace.com)



# Acciaierie Valbruna S.p.A.

36110 VICENZA (Italia) - Viale delle scienze, 25 z.1.  
Sito: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliento / Baßler/Inchase Client  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
46801 FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.p.A.  
Inventori/Usine produttori

Stato di fornitura: Hot rolled - Annealed Cold Drawn  
Lieferzustand/Delivery state:Einf. de livraison

Intergranular corrosion test per ASTM A262 pract. E: ok  
Absence of cracks at 20x magnification after bend test.  
Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste.  
Die gesetzten Anforderungen sind erfüllt.  
The material has been furnished in accordance with the requirements.  
Le matières sont dans le conformité avec les exigences.

Melted and manufactured in Italy. No welding or weld repair  
We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex I, II, III by TUEV and LLOYD'S.  
Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.  
Maxival and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.  
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.



QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER

Avviso di Spedizione: D:VI14012001  
Lieferanweisung/Order Ref.: L:

Ordine nr: 39229 5400219049-R05  
Batch/Order Under/Command:

Tipo di Elaborazione: E+AOD  
Bearbeitungsart: geschweißt/geschmiedet/verarbeitet

CERTIFICATO DI COLLAUDO  
ABNAHMEPRUEFZEUGNIS  
INSPECTION CERTIFICATE  
CERTIFICAT DE RECEPTION  
EN 10204 (2004), 3.1

Certificato nr: MEST498153/2014/  
Prüfung/Inspektion

Conferma ordine nr: EI14003704  
Werks/Our Order Ref.:

Marchio di Fabbrica:  
Zischen der Umlaufmarken  
Trade mark  
Sigle de l'usine: produzione

Punzone del Collaudatore:  
Stampo des Werksachverständigen  
Inspector's stamp/Poligone da f. collaudare



Controllo visivo e dimensionale: soddisfa le esigenze.  
Visuell und Abmessungsprüfung: ohne Beschränkung.  
Visual inspection and dimensional check/städtig.  
Control visual et dimensionnel: satisfait.

Vicenza, 04/04/14  
VC0008  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Non-destructive Inspector / L'agent d'usine

M.Rizzotto

Pagina - 2 di 2

INNANS Job# 8361



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

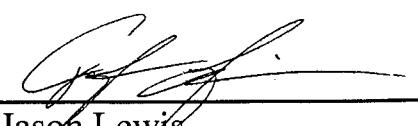
### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
10	100	EA	MS21060L3K		5277262-000	ALCOA KAYNAR FULLERT	15653		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

# Alcoa Fastening Systems



## Packing Slip

Packing Slip: 9947897292

Page: 1

Bill To: 5574  
M & M AEROSPACE  
HARDWARE, INC.  
P.O. BOX 025263  
MIAMI FL 33102-5263

Ship To: (1)  
M & M AEROSPACE  
10000 N.W. 15TH TERRACE  
MIAMI FL 33172

From:  
ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA

Notice to Subsequent Purchaser or Repacker:  
These articles are imported. The requirements of 19 U.S.C. 1304 & CFR part 134 provide that the articles or their containers must be marked in a conspicuous place as legibly, indelibly & permanently as the nature of the article or container will permit, in such a manner as to indicate to an ultimate purchaser in the United States, the English name of the country of origin of the article.

### Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
03/11/08	F284673	OEB586			

Line/Rel	Item	U/M	Qty Ordered	Qty To Pack
1-1	BG5040	EA	100,000	67,080
	F5001-3BC			

C/I: MS21060L3K  
PO Item #:  
\*\*\* TSO C-148 APPVD PART. TSO LABEL REQ'D \*\*\*

Rer. New  
Cust Date: 11/25/08  
Kay Date: 12/13/07

Lot: 5277262-000 COO:MEXICO  
Waybill: ECCN:9A991 Schedule-B Number:7318.16.0000

The export classification appears above. You are responsible for all related export license requirements.

CHEM & PHYS & MFG C OF C REQ  
DUAL CERT TO F5001-3BC & NAS686C3MK Rer. 13  
BILL LINE 1,2,3 & 4 TOGETHER

BUYER: CLAUDIA  
PHONE: 30  
5-592-5155

### CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776  
ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

**Alcoa  
Fastening  
Systems**



Packing Slip

Packing Slip: 9947897292

Page: 2

Bill To: 5574  
M & M AEROSPACE  
HARDWARE, INC.  
P.O. BOX 025263  
MIAMI FL 33102-5263

Ship To: (1)  
M & M AEROSPACE  
10000 N.W. 15TH TERRACE  
MIAMI FL 33172

From:  
ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
03/11/08	F284673	OEB586			

Line/Rel Item QTY Ordered QTY To Pack  
-----  
"MATERIAL COMPLIES WITH DFARS 252.225-70  
14 REQUIREMENTS," "PREFERENCE FOR  
DOMESTIC SPECIALTY METALS" WITH ITS ALTE  
RNATE 1 APPLIES.  
\*\*\*\*\* ALLOWABLE SHIPPING TOLERANCE = +/- 5%  
\*\*\*\*\* CHEM & PHYS & MFG C OF C  
REQ "MUST STATE COUNTRY OF ORIGIN WHERE  
PARTS WERE MANUFACTURED ON  
CERTIFICATION FOR EACH LOT NUMBER" ALL I  
TEM'S ON THIS PO MUST BE NEW AND TO  
THE LATEST REV MFGS NAME & LOT# MUST APP  
EAR ON PACKING SLIP ON ALL PAPER  
WORK FOR ALL ITEMS. IF UNDER 150 # SHIP  
VIA FED EX GROUND SERVICE: BILL  
RECIPIENT ACCT: 0331-0149-0. IF OVER 1  
50 # USE FED X NAT'L (WATKINS) ACCT.  
# 018757. CUST REF: MUST BE THEIR PO #  
"DO NOT PREPAY & ADD TO ANY OF THE  
ABOVE METHODS" & "CONSOLIDATE SHIPMENTS  
WHERE EVER APPROPRIATE" DO NOT SHIP

**CERTIFICATE OF CONFORMANCE**  
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*Christopher Fredrickson*  
CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

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**Alcoa  
Fastening  
Systems**



Packing Slip

Packing Slip: 9947897292

Page: 3

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M & M AEROSPACE  
HARDWARE, INC.  
P.O. BOX 025263  
MIAMI FL 33102-5263

Ship To: (1)  
M & M AEROSPACE  
10000 N.W. 15TH TERRACE  
MIAMI FL 33172

From:  
ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
05/11/08	F284673	OEB586			

Line/Rel	Item	U/M	Qty Ordered	Qty To Pack

PARTS BY ANY OTHER CARRIER THAN THOSE LISTED ABOVE, WITHOUT PROPER WRITTEN AUTHORIZATION FROM M&M.  
ECCN OR ITAR AND SCHEDULE B NUMBERS ARE REQUIRED ON PACKER AND CERTIFICATIONS.  
CESSNA PACKAGE PRICE OKAY PER BOB P.  
chem & phys certs

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Quality Manager  
Fullerton Operations

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**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
 Fullerton Operations  
 800 S STATE COLLEGE BLVD  
 FULLERTON CA 92831

# TEST REPORT

NO. 8113320  
 Page 1 of 5  
 Lot No. 5277262-000

Supplier Item No. BG5040	Supplier Part No. <b>F5001-3BC</b>	Interchange Part No. <b>MS21060L3K Rev. NEW</b>	Interchange Part No. <b>NAS686C3MK Rev. 13</b>
Manufactured Quantity 67080	Mfg. Date	Generic Description <b>NUT ANCHOR 2 LUG</b>	Thread Size
PERFORMANCE NASM25027			
Material Spec. # 1 AMS 5525-II	Mill Heat No. <b>553031</b>	Control Heat No. <b>AA14344</b>	Material Supplier <b>CARPENTER TECHNOLOGY CORP</b>
Material Spec. # 2 AMS 5525-H	Mill Heat No. <b>553318</b>	Control Heat No. <b>AA14415A</b>	Material Supplier <b>CARPENTER TECHNOLOGY CORP</b>
Special Process Requirements: <b>THREADS AND GAUGING PER MIL-S-8879C AND    ANSI B1.3M SYS. 22    MIN EQUALS BKWY MAX EQUALS INST.    MAGNETIC PERMEABILITY LESS THAN 2.0</b>			

## TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 070 TORQUE-OUT	LBS	1	1	60.00			60.00	
		2	1	60.00				
		3	1	60.00				
		4	1	60.00				
		5	1	60.00				
		6	1	60.00				
		7	1	60.00				
		8	1	60.00				
		9	1	60.00				
		10	1	60.00				
		11	1	60.00				
		12	1	60.00				
		13	1	60.00				
		14	1	60.00				
		15	1	60.00				
2 - 08G PUSH-OUT	LBS	1	1	100.00			100.00	
		2	1	100.00				
		3	1	100.00				
		4	1	100.00				
		5	1	100.00				
		6	1	100.00				
		7	1	100.00				
		8	1	100.00				
		9	1	100.00				

TEST RESULTS - Continued on next page.

**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED**

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 CHRISTOPHER R. J. FREDRICKSON QA MGR.

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
 Fullerton Operations  
 800 S STATE COLLEGE BLVD  
 FULLERTON CA 92831

# TEST REPORT

NO.

8113320

Page 2 of 5

Lot No.

5277262-000

Supplier Item No.  
**BG5040**

Supplier Part No.  
**F5001-3BC**

## TEST RESULTS - Continued from previous page

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
		10	1	100.00				
		11	1	100.00				
		12	1	100.00				
		13	1	100.00				
		14	1	100.00				
		15	1	100.00				

Component	Lot Number	Supplier Part No.	Supplier Item No.
	<b>I M003279-000</b>	<b>F5001-3XN</b>	<b>BG5060</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
	<b>12/06/07</b>	<b>FLOATING NUT</b>	<b>.1900-32</b>

HEAT TREAT	PLATE/COAT	LUBRICATION	NON-DESTRUCT
<b>AMS-H-6875</b>	<b>AMS-QQ-P-35/AMS 2700</b>	<b>AS5272 TY I</b>	<b>ASTM E1417 TY I SAMPLE</b>

Performance	Performance		
<b>BPS-N-70 CL 125TC4</b>	<b>NASM25027</b>		

Material Spec.	Mill Heat No.	Control Heat No.	Material Supplier
<b>1 AMS 5525-H</b>	<b>553031</b>	<b>AA14344</b>	<b>CARPENTER TECHNOLOGY CORP</b>

## TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1.310 TORQUE TEST MAX 18, MIN 2 (CYCLES 1.7.15)	IN#	1	1	8.30	9.20		2.00	18.00
			7	9.50	10.90			
TORQUE TEST BOLT CHAR: KAS96-03			15	12.30	13.20			
		2	1	8.40	9.60			
			7	8.60	9.70			
			15	10.20	11.30			
		3	1	7.60	8.70			
			7	9.50	10.60			
			15	10.30	11.20			
		4	1	8.60	9.30			
			7	10.30	11.30			
			15	12.80	13.20			
		5	1	9.10	10.50			
			7	10.20	10.40			
			15	10.80	11.40			
		6	1	8.30	8.60			
			7	9.80	10.60			
			15	11.20	11.30			
		7	1	7.60	8.90			
			7	10.50	11.90			

## TEST RESULTS - Continued on next page

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8113320

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
Fullerton Operations  
800 S STATE COLLEGE BLVD  
FULLERTON CA 92831

# TEST REPORT

Lot No.

5277262-000

Supplier Item No. <b>BG5040</b>	Supplier Part No. <b>FS001-3BC</b>
------------------------------------	---------------------------------------

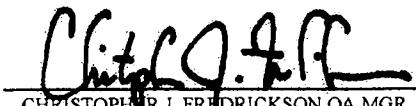
**TEST RESULTS - Continued from previous page.**

TEST S/N Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
			15	12.10	12.10			
		8	1	8.40	10.30			
			7	9.40	10.30			
			15	10.80	11.30			
		9	1	8.90	10.50			
			7	10.20	10.60			
			15	11.10	11.00			
		10	1	9.40	10.60			
			7	10.90	11.40			
			15	12.50	13.20			
		11	1	8.40	9.90			
			7	10.20	10.50			
			15	12.20	12.50			
		12	1	9.20	10.30			
			7	10.10	10.30			
			15	12.10	12.40			
		13	1	7.60	9.20			
			7	10.10	10.30			
			15	12.10	12.40			
		14	1	10.20	11.00			
			7	10.80	11.20			
			15	13.00	13.00			
		15	1	8.30	9.50			
			7	10.20	10.90			
			15	12.90	13.20			
410 HARDNESS HRC 38-44	HRC	1	1	43.00	44.00			
90012 Torque Test MAX INST. 18 LBS. / 2.0 LBS. MIN. TORQUE TEST BOLT CHAR: KAS6733U BACH301M3U	IN#	1	1	8.30	8.60		2.00	18.00
			7	9.50	10.30			
			15	12.30	12.60			
		2	1	8.40	9.20			
			7	8.60	9.40			
			15	10.20	10.90			
		3	1	7.60	8.40			
			7	9.50	10.30			
			15	10.30	10.80			
		4	1	8.60	9.00			
			7	10.30	11.20			
			15	12.80	13.50			
		5	1	9.10	10.30			

**TEST RESULTS - Continued on next page.**
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<b>Alcoa</b> <b>Fastening</b> <b>Systems</b>  Aerospace Products Fullerton Operations 800 S STATE COLLEGE BLVD FULLERTON CA 92831					NO.		Page 4 of 5		
					8113320				
<b>TEST REPORT</b>					Lot No.		<b>5277262-000</b>		
Supplier Item No. <b>BG5040</b>			Supplier Part No. <b>F5001-3BC</b>						
<b>TEST RESULTS - Continued from previous page</b>									
TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement	
11 - 020" ENSILE TEST 2,825 lbs. min.	LBS		7	10.20	10.60				
			15	10.80	11.50				
			6	1	8.30	9.40			
				7	9.80	10.90			
				15	11.20	11.80			
				7	7.60	8.20			
				15	10.50	11.50			
				8	12.10	12.60			
				1	8.40	9.70			
				7	9.40	10.60			
				15	10.80	11.80			
				9	8.90	10.30			
				1	10.20	10.90			
				7	11.10	11.30			
				10	9.40	10.50			
	1	10.90	11.60						
	15	12.50	13.40						
	11	8.40	9.40						
	1	10.20	10.80						
	7	12.20	12.80						
	12	9.20	9.60						
	1	10.80	11.30						
	7	12.50	13.40						
	13	7.60	8.40						
	1	10.10	10.50						
	7	12.10	12.80						
	14	10.20	10.60						
	1	10.80	11.50						
	7	13.00	13.20						
	15	8.30	8.60						
	1	10.20	10.60						
	7	12.90	13.80						
	15						2825.00		
<b>TEST RESULTS - Continued on next page</b>									
<b>THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED</b>									
<p>The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.</p>									
 CHRISTOPHER J. FREDRICKSON QA MGR.									

NO.

Page 5 of 5

8113320

**Alcoa  
Fastening  
Systems**

Aerospace Products  
Fullerton Operations  
800 S STATE COLLEGE BLVD  
FULLERTON CA 92831

**TEST REPORT**

Lot No.

5277262-000

Supplier Item No.  
**BG5040**

Supplier Part No.  
**FS001-3BC**

**TEST RESULTS - Continued from previous page**

TEST No. Description		JOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
			9	1	2970.00				
			10	1	2970.00				
			11	1	2970.00				
			12	1	2970.00				
			13	1	2970.00				
			14	1	2970.00				
			15	1	2970.00				

Component #	Lot Number	Supplier Part No.	Supplier Item No.
2	<b>5263884-000</b>	<b>FS031-3BCFB</b>	<b>BG5510</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
	<b>02/15/08</b>	<b>BASKET</b>	

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
AMS 5525-H	<b>553318</b>	<b>AA14415A</b>	<b>CARPENTER TECHNOLOGY CORP</b>

**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

CHRISTOPHER J. FREDRICKSON QA MGR.

CERTIFICATE OF TESTS  
CERT SERIAL# 000621276



Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

12/03/07  
CUSTOMER/BESTELLER/CLIENT

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

AA14344

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER/VERKAUFER/VENDEUR PAGE 1 OF 2

FAIRCHILD FASTENERS  
FULLERTON OPERATION  
P O BOX 3001  
FULLERTON , CA 92631

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/Poids
220276164	LOS940001 L30900	12/03/07	4401.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 553031

PRODUCT DESCRIPTION: CONSUMET A286 COLD FINISH SOLUTION ANNEALED  
PART NUMBER: 222619

SPECIFICATION: AMS 5525 (REAFFIRMED) REV H {04/ /06}  
----- FAIRCHILD MS 300 REV 7 {01/17/03}  
----- FAIRCHILD MS 550 REV 2 {12/10/02}

SIZE 0.750000 X 0.032000 IN. ( 19.05 X 0.81 MM) FLT STP

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (OES)	MN (XRF)	SI (XRF)	P (OES)	S (OES)	CR (XRF)
0.05	0.35	0.15	0.016	0.001	14.09
NI (XRF)	MO (XBF)	CU (XRF)	CO (XRF)	AL (OES)	TI (OES)
24.36	1.18	0.10	0.13	0.16	2.18
V (XRF)	B (OES)				
0.25	0.0062				

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025.

HARDNESS AS SHIPPED, HRBW - 82 /

BEND TEST - SATISFACTORY

YIELD STRENGTH, (0.20 %) KSI(MPA) 47.9( 330)  
TENSILE STRENGTH, KSI(MPA) 97.5( 672)  
ELONGATION IN 2.00", % 33.0

GRAIN SIZE PER ASTM E112: 12 / (KALLINGS)

CAPABILITY

1325 F( 718 C), 16 HR AIR COOL

HARDNESS 32HRC( 7615N) /

SMOOTH STRESS RUPTURE  
TEST TEMP 1200 F( 649 C)  
STRESS KSI(MPA) 67.5( 465)  
TEST DISCONT. @ 23.0

K226  
12/04/07

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die angegebenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est inscrit sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

CERTIFICATE OF TESTS  
CERT SERIAL# 000621276



**CARPENTER**  
Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

12/03/07  
CUSTOMER / BESTELLER / CLIENT

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SELLER / VERKÄUFER / VENDEUR PAGE 2 OF 2

AIRCHILD FASTENERS  
FULLERTON OPERATION  
P O BOX 3001  
FULLERTON , CA 92631

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
220276164	LOS940001 L30900	12/03/07	4401.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE : 553031  
CAPABILITY

1325 F ( 718 C ), 16 HR AIR COOL

YIELD STRENGTH (0.20 %) KSI(MPA) 115.0( 793 )  
TENSILE STRENGTH, KSI(MPA) 166.0( 1145 )  
ELONGATION IN 2.00", % 20.0

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.  
MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS OF DFARS 252.225.7014  
(JUNE 2005) ALT.1 AND SUBSECTION 225.872.1.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO  
THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 04-0540 BY PERFORMANCE  
REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH  
3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE  
IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

VICKI L. CLAY  
MET RELEASE/REQUIREMENTS ANALYST  
CARPENTER TECHNOLOGY CORPORATION

222619

*Vicki L. Clay*

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgetauschten Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est indiqué sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

CERTIFICATE OF TESTS  
CERT SERIAL# 000628633



**CARPENTER**

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

01/10/08

CUSTOMER/BESTELLER/CLIENT

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

AA14415A

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SELLER/VERKÄUFER/VENDEUR PAGE 1 OF 2

FAIRCHILD FASTENERS  
FULLERTON OPERATION  
P O BOX 3001  
FULLERTON , CA 92631

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
220280531	LOS021201 L30146	01/10/08	332.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 553318

PRODUCT DESCRIPTION: CONSUMET A286 COLD FINISH SOLUTION ANNEALED  
PART NUMBER: 221419

SPECIFICATION: AMS 5525 (REAFFIRMED) REV H {04/ /06}  
FAIRCHILD MS 300 REV 7 {01/17/03}  
FAIRCHILD MS 550 REV 2 {12/10/02}

SIZE 0.750000 X 0.020000 IN. ( 19.05 X 0.50 MM) FLT STP

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (OES)	MN (XRF)	SI (XRF)	P (OES)	S (OES)	CR (XRF)
0.05	0.29	0.22	0.013	LT .0005	14.20
NI (XRF)	MO (XRF)	CU (XRF)	CO (XRF)	AL (OES)	TI (OES)
24.20	1.18	0.09	0.16	0.15	2.19
V (XRF)	B (OES)				
0.23	0.0065				

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025.

HARDNESS AS SHIPPED, HRBW - 85 / 81

BEND TEST - SATISFACTORY

YIELD STRENGTH, (0.20 %) KSI(MPA) 51.5{ 355}  
TENSILE STRENGTH, KSI(MPA) 101.0{ 696  
ELONGATION IN 2.00", % 33.0

GRAIN SIZE PER ASTM E112: 10 / (KALLINGS)

CAPABILITY

1325 F ( 718 C ), 16 HR AIR COOL

YIELD STRENGTH, (0.20 %) KSI(MPA) 120.0{ 827  
TENSILE STRENGTH, KSI(MPA) 170.0{ 1172  
ELONGATION IN 2.00", % 20.0  
HARDNESS , HRC 34.0

11-08  
X226

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est imprime sur ce formulaire. Carpenter n'assume pas de responsabilite pour une certification vis-a-vis d'une tierce personne.

CERTIFICATE OF TESTS  
CERT SERIAL# 000628633



**CARPENTER**

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

01/10/08

CUSTOMER/BESTELLER/CLIENT

**ABNAHMEPRUEFZEUGNIS**

**CERTIFICAT DE CONTROLE**

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SELLER/VERKAUFER/VENDEUR PAGE 2 OF 2

FAIRCHILD FASTENERS  
FULLERTON OPERATION  
P O BOX 3001  
FULLERTON , CA 92631

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/Poids
220280531	LOS021201 L30146	01/10/08	332.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULÉE:

553318

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.  
MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIRE-  
MENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1.  
CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO  
THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 07-0869 BY PERFORMANCE  
REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH  
3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE  
IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

HEIDI L. SUNDAY  
MET RELEASE/REQUIREMENTS ANALYST  
CARPENTER TECHNOLOGY CORPORATION

221419

*Heidi L. Sunday*

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est inscrit sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REP#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
15	200	EA	MS21042L5		51693	ALCOA FASTENING/REP# 52828			

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

**Alcoa  
Fastening  
Systems**



Shipper ID: 894595

Page: 1

Sold To: 5574  
B/E AEROSPACE, INC.  
ATTN: ACCOUNTS PAYABLE  
P.O. BOX 025263  
MIAMI, FL 33102-5263  
USA

Ship To: 55740014  
B/E AEROSPACE CONSUMABLES  
9835 NW 14TH ST  
MIAMI, FL 33172  
USA

Shipped From:  
**ALCOA FASTENING SYSTEMS**  
**AEROSPACE PRODUCTS**  
**NEWBURY PARK, REPUBLIC OPERATIONS**  
1300 Rancho Conejo Blvd  
Newbury Park, CA 91320  
TEL: (805) 262-4200

Ship Date: 09/10/14  
Print Date: 09/10/14  
Time: 10:18:13

Ship Via: FED EX OVERNIGHT  
INCO Terms: FCA NEWBURY PARK

Container/Weight:  
Carrier Shipment Ref: 894595  
Bill Lading #:

SHIP VIA : FED EX OVERNIGHT

BUYER: ROHAN JOHNSON PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-7009 PREFERENCE FOR DOMESTIC SPECIALTY METALS" WITH ITS ALTERNATE 1.

\*\*\*SHIP VIA FEDX AIR COLLECT ACCT# 0331-0149-0 IF 150 LBS OR MORE SHIP FED EX FREIGHT ECONOMY COLLECT ACCT# 018757. \*\*\*  
DO NOT SHIP BY ANY OTHER WITHOUT PROPER WRITTEN AUTHORIZATION.  
ALLOWABLE SHIPPING TOLERANCE = +0% -0%.

\*\* BAR CODE PER QAP 33 CLAUSE P REQUIRED \*\*\*

\*\* QAP 33.0 REV G CLAUSES: A,A.1,B,C,E,H,P,U,V. CLAUSE A.3 GENERAL TERMS APPLIES.

\*\*\*REV. LATEST

RELEASE # W0190MMR88

03/18/14 ADDED TO THE MILESTONE UPDATED TO SHIP OVERNIGHT-AA

02/20/14 PER MILESTONE CALL MYRRA AND MARIA OK TO SPLIT ORDER FROM REPUBLIC TO FULLERTON SO# F497806 BE WANTS TO TAKE 7,350 PCS IN STOCK FROM FULLERTON NEW SALES ORDER WAS CREATED FOR FULLERTON STOCK-AA

05/12/14 ADDED TO THE MILESTONE UPDATED TO SHIP OVERNIGHT-AA

Sales Order: F454386 Order Date: 01/24/13 Purchase Order: OMMR88

Remarks: CONNIE

Ln Item Number	Description	Rev	Qty Shipped	Qty B/O UM	
5 RH30A5	Hex Nut, 8740, TSO-C148 Low Height, Lightweight		59120.0	0.0 EA	*
Cust Line #:	5				
Customer Item:	MS21042L5				

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

*Delfina Martinez* *Delfina Martinez*  
Name Signature  
A.F.S. Republic

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

CUSTOMER'S COPY

ALCOA GLOBAL FASTENERS, INC.

**Alcoa  
Fastening  
Systems**



Shipper ID: 894595  
Page: 3

Sold To: 5574  
B/E AEROSPACE, INC.  
ATTN: ACCOUNTS PAYABLE  
P.O. BOX 025263  
MIAMI, FL 33102-5263  
USA

Ship To: 55740014  
B/E AEROSPACE CONSUMABLES  
9835 NW 14TH ST  
MIAMI, FL 33172  
USA

Shipped From:  
**ALCOA FASTENING SYSTEMS**  
**AEROSPACE PRODUCTS**  
**NEWBURY PARK, REPUBLIC OPERATIONS**  
**1300 Rancho Conejo Blvd**  
**Newbury Park, CA 91320**  
TEL: (805) 262-4200

Ship Date: 09/10/14  
Print Date: 09/10/14  
Time: 10:18:13

Ship Via: FED EX OVERNIGHT  
INCO Terms: FCA NEWBURY PARK

Container/Weight:  
Carrier Shipment Ref: 894595  
Bill Lading #:

export license requirements.

Ln Item Number	Description	Rev	Qty Shipped	Qty B/O UM
----------------	-------------	-----	-------------	------------

7 RH30A5	Hex Nut, 8740, TSO-C148	22470.0	77530.0 EA	*
----------	-------------------------	---------	------------	---

Low Height, Lightweight

Cust Line #: 7

Customer Item: MS2104215

Required Date: 04/02/14 Promised Date: 04/09/14

\*\*\*DUAL CERT TO: NAS1291-5\*\*\*

MFG C OF C CHEM & PHYS TEST REPORT REQ

Loc/Lot:	f-2030	51693	22,470.00	COO: mx
----------	--------	-------	-----------	---------

HTS CODE: 7318160085

SCHEDULE-B NUMBER: 7318160000 ECCN: 9A991

The export classification appears above. You are responsible for all related  
export license requirements.

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\* Total Qty Shipped:

181,590 \*\*\*\*\*

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with  
the contract, drawing specifications, and other applicable documents. All  
required process certifications, chemicals and physical test reports are on file  
subject to examination. This document must not be reproduced except in  
full and relates only to the items tested.

*Delfina Martinez* *Delfina Martinez*  
Name Signature  
A.F.S. Republic

ALCOA GLOBAL FASTENERS, INC.

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

**CUSTOMER'S COPY**



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

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**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
6	1000	EA	NAS1149D0663J		X9492	ANILLO INDUSTRIES	10630		

  
05/08/15  
Jason Lewis  
Senior Director, Global Quality

**ANILLO Industries, Inc.**

2090 NORTH GLASSELL STREET, ORANGE, CA 92865-3391 USA

PLEASE REMIT TO

P.O. BOX 5586 ORANGE, CA 92863-5586 USA  
(714) 637-7000 (562) 924-8832 FAX(714) 637-3022**571156****Packing List &****Certification**

WE ACCEPT

VISA/MASTER/DISCOVER/AMEX

**SOLD TO****1165****E**

B/E AEROSPACE, INC.  
ATTN: ACCOUNTS PAYABLE DEPT.  
10000 NW 15TH TERRACE

MIAMI, FL 33172

**SHIP TO**

B/E AEROSPACE, INC.  
CONSUMABLES MANAGEMENT  
9835 NW 14TH ST

MIAMI, FL 33172

DATE ORDER RECD	ORDER NUMBER	INVOICE DATE	SHIPPED VIA	TERMS
12/19/2011	1A1294		FEDXG 033101490	1% 10 DAYS, NET 30
ITEM	ORDERED	SHIPPED	DESCRIPTION	NET WEIGHT

1 385,715 *40,590* NAS1149D0663J  
 REV 5 /LOT#X9492 /MIN/MAX /QCR:1,4,6,8,15,16 /AN960JD616  
 ECCN: 9A991 Schedule B#: 7616.10.8000 COO: USNLR

We certify that: 1. item number 1 above is manufactured in accordance with the material and processing specifications of this order.  
 2. We certify that the material on this order conforms in all respects to the current applicable government and/or manufacturer's specification. Test reports are on file and are available for examination on all Anillo manufactured parts. All claims for errors or shortages must be made within 10 days after receipt of goods.  
 No good to be returned without written authorization. All claims for defective material must filed within 30 days of shipment to receive consideration. We do not assume financial responsibility or liability from the use of products sold, other than the replacement value of the products sold, if claimed within the specified time limit above.

&lt;&lt; R.M.A. # REQUIRED FOR RETURNS &gt;&gt;

&lt;&lt; TO THE BEST OF OUR KNOWLEDGE, PARTS ARE MERCURY FREE &gt;&gt;

**Certification**

**B/E Aerospace, Inc.**  
**Consumable Management**  
**Self Release**

Signature & Stamp: *Ben Omidwar*Date: 7-25-14

BY *Ben Omidwar*  
 Ben Omidwar, Quality Assurance Manager

FI 4.03.05

**CERTIFIED INSPECTION REPORT**

**Alcoa Inc.**

DAVENPORT WORKS 4670 State Street Bettendorf, IA 52722

Phone: 563-3256-24

Inspected By:	Bl. No.:	Inspected At:	Alcoa Inc.
2012-01-21	0000	Inspection #:	00-5256-1
D.O. McNeil-Cochran	Customer:	Alcoa Inc.	
Process Lot #: 01	Lot Number:	P-A-655874	
Date Inspected: 12/10/13 Thru			

Page 1 of 2

Qlip for 1000 pound circular

steel container, new

item # serials 90700

Item Description

1,000 LB TR (1,000 - 000) X 40.0" H (10.0" O.D. x 4.0" I.D.) CCR 1.00000

1000

PC

27761 4770

Inspector Check Number

Notes for Crn: Q100000-12  
Product produced and tested to the requirements of AS-91-  
A-1000 also meets the requirements of QD-1-25012, Revision 2.  
Product produced and tested to the requirements of QD-1-25012, Revision 2.  
QD-1-25012, Revision 2 also meets the requirements of AS-91-2507, Revision 2.

QD-1-25012, Revision 2 also meets the requirements of AS-91-2507, Revision 2.

AS-91-2507, Revision 2

# Certification

ANILLO INDUSTRIES, INC.  
2090 North Glassell st.  
Orange, CA. 92865-3391  
(714) 637-9110

*This is to certify that the below listed parts were processed per the applicable specification listed below.*

*Test reports and procedures governing this process are on file and subject to examination.*

## CHEMICAL FILM MIL-DTL-5541

Type	Class	Thickness	Revision
I	3		F

Job Number: X9492 P/N REV.: 5 Quantity: 105,000 Visual: Y

Part Number: NAS1149 D 0663 J Adhesion: N

Description:

*X9492 J D663*

Date: 02/06/14

Authorized by: MARIBEL CUEVAS

Stamp:



FORM # 4.09.117 REV A 05/19/09



P.O. Box 5263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Physical Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
9	150	EA	MS21060-3K		5340465-000	ALCOA KAYNAR FULLERT	15653		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

**Alcoa  
Fastening  
Systems**

Packing Slip

Packing Slip: 9947994956

Page: 1

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
**ALCOA FASTENING SYSTEMS**  
**AEROSPACE PRODUCTS**  
**FULLERTON OPERATIONS**  
**800 SOUTH STATE COLLEGE**  
**FULLERTON CA 92831**  
USA

Notice to Subsequent Purchaser or Repacker.  
These articles are imported. The requirements of 19 U.S.C.  
1304 & CFR part 134 provide that the articles or their  
containers must be marked in a conspicuous place as  
legibly, indelibly & permanently as the nature of the article or  
container will permit, in such a manner as to indicate to an  
ultimate purchaser in the United States, the English name of  
the country of origin of the article.

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight Pkgs #
12/28/10	F296602	OEV656		

Line/Rel

**CERTIFICATION**

C/I: BACN10JR3CFR

Ref. AC

Cust Date: 12/12/12

PO Item #:

Kay Date: 01/11/11

\*\*\* TSO C-148 APPVD PART. TSO LABEL REQ'D \*\*\*

Lot: 5340465-000

COO:MEXICO

ECCN:9A991 Schedule-B Number:7318.16.0000

Waybill: \_\_\_\_\_

The export classification appears above. You are  
responsible for all related export license  
requirements.

CHEM & PHYS & MFG C OF C REQ  
DUAL CERT TO NAS1031C3K, NAS686C3K AND M  
S21060-3K  
BILL LINE 10,11,12 & 13 TOGETHER

BUYER:DIMITRIS

PHONE: 30

Honeywell Source Accepted:

Christy Wiltjer

K352

12/28/10

Date

RMRA # (if appl) 901A

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with  
the contract, drawing specifications, and other applicable documents. All  
required process certifications, chemicals and physical test reports are on file  
subject to examination. This document must not be reproduced except in  
full and relates only to the items tested.

CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776  
ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH  
TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST  
ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE  
DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING  
HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF  
FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

**Alcoa  
Fastening  
Systems**



Packing Slip



Packing Slip: 9947994956

Page: 2

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
**ALCOA FASTENING SYSTEMS**  
**AEROSPACE PRODUCTS**  
**FULLERTON OPERATIONS**  
**800 SOUTH STATE COLLEGE**  
**FULLERTON CA 92831**  
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight Pkgs #
12/28/10	F296602	OEV656		

Line/Rel

# CERTIFICATION

501-92-515  
"MATERIAL COMPLETES WITH DFARS 252.225-70"

14 REQUIREMENTS, "PREFERENCE FOR  
DOMESTIC SPECIALTY METALS" WITH ITS ALTE  
RNATE 1 APPLIES.

\*\*\*\*\* ALLOWABLE SHIPPING TOLERANCE = +5% -1  
0% \*\*\*\*\* CHEM & PHYS & MFG C OF C  
REQ "MUST STATE COUNTRY OF ORIGIN WHERE  
PARTS WERE MANUFACTURED ON  
CERTIFICATION FOR EACH LOT NUMBER" ALL I  
TEM'S ON THIS PO MUST BE NEW AND TO  
THE LATEST REV MFG'S NAME & LOT# MUST APP  
EAR ON PACKING SLIP ON ALL PAPER  
WORK FOR ALL ITEMS.

\*\*\*\*\*  
\*\*\*\*\* IF UNDER  
150 # SHIP VIA FED EX GROUND SERVICE: BI  
LL RECIPIENT ACCT: 0331-0149-0. IF  
OVER 150 # USE FED X NAT'L(WATKINS) ACCT  
. # 018757. CUST REF: MUST BE THEIR

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with  
the contract, drawing specifications, and other applicable documents. All  
required process certifications, chemicals and physical test reports are on file  
subject to examination. This document must not be reproduced except in  
full and relates only to the items tested.

*Christopher Fredrickson*  
CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kayna Products: Cage Code 15853 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776  
ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH  
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HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF  
FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

**CUSTOMER'S COPY**

**Alcoa  
Fastening  
Systems**



Packing Slip



Packing Slip: 9947994956

Page: 3

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
**ALCOA FASTENING SYSTEMS**  
**AEROSPACE PRODUCTS**  
**FULLERTON OPERATIONS**  
**800 SOUTH STATE COLLEGE**  
**FULLERTON CA 92831**  
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
12/28/10	F296602	OEV656			

Line/Rel Itm P# "DO NOT PAY ADD TO ANY OF THE ABOVE METHODS" "CONSOLIDATE"

SHIPMENTS WHERE EVER APPROPRIATE" DO NOT  
SHIP PARTS BY ANY OTHER CARRIER  
THAN THOSE LISTED ABOVE, WITHOUT PROPER  
WRITTEN AUTHORIZATION FROM M&M.  
ECCN OR ITAR AND SCHEDULE B NUMBERS ARE  
REQUIRED ON PACKER AND  
CERTIFICATIONS.  
chem & phys certs

# CERTIFICATION

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kayner Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

**CUSTOMER'S COPY**

Date Created: Tue Dec 28 14:25:55 2010

SHIPPER#: 9947994956

 <b>TEST REPORT</b>				<b>NO.</b> <b>8154161</b> <b>Page 1 of 5</b>					
				<b>Lot No.</b> <b>5340465-000</b>					
<b>Supplier Item No.</b> <b>BG5500</b>		<b>Supplier Part No.</b> <b>F5031-3BC</b>							
<b>Interchange Part No.</b> <b>BACN10JR3CFR Rev. AC</b>		<b>Interchange Part No.</b> <b>F5031-3BC</b>		<b>Interchange Part No.</b> <b>MS21060-3K Rev. 1</b>					
<b>Interchange Part No.</b> <b>NAS1031C3K Rev. 6</b>		<b>Interchange Part No.</b> <b>NAS686C3K Rev. 13</b>		<b>Interchange Part No.</b>					
<b>Manufactured Quantity</b> <b>25880</b>		<b>Mfg. Date</b> <b>NASM25027</b>		<b>Generic Description</b> <b>NUT ANCHOR TWO LUG</b>					
<b>Performance</b> <b>BPS-N-70 CL 125TC9</b>		<b>PERFORMANCE</b> <b>NASM25027</b>							
<b>Material Spec. #</b> <b>1</b> <b>AMS 5525-J</b>	<b>Mill Heat No.</b> <b>560127</b>	<b>Control Heat No.</b> <b>AA16536B</b>	<b>Material Supplier</b> <b>CARPENTER TECHNOLOGY CORP</b>						
<b>Material Spec. #</b> <b>2</b> <b>AMS 5525-J</b>	<b>Mill Heat No.</b> <b>559637</b>	<b>Control Heat No.</b> <b>AA16543D</b>	<b>Material Supplier</b> <b>CARPENTER TECHNOLOGY CORP</b>						
<b>Special Process Requirements:</b> <b>THREADS AND GAUGING PER AS8879 AND</b> <b>ANSI B1.3M SYS. 22</b> <b>MIN EQUALS BKWY MAX EQUALS INST.</b> <b>MAGNETIC PERMEABILITY LESS THAN 2.0</b>									
<b>TEST RESULTS</b>									
<b>- - - - T E S T - - - -</b> <b>No. Description</b>		<b>UOM</b>	<b>SAMPLE Number</b>	<b>RESULT Cycle</b>	<b>MINIMUM Value</b>	<b>MAXIMUM Value</b>	<b>PASS/ Fail</b>	<b>MINIMUM Requirement</b>	<b>MAXIMUM Requirement</b>
<b>1 - 070 TORQUE-OUT</b>		<b>LBS</b>	1	1	60.00			60.00	
			2	1	60.00				
			3	1	60.00				
			4	1	60.00				
			5	1	60.00				
			6	1	60.00				
			7	1	60.00				
			8	1	60.00				
			9	1	60.00				
			10	1	60.00				
			11	1	60.00				
			12	1	60.00				
			13	1	60.00				
			14	1	60.00				
			15	1	60.00				
<b>2 - 080 PUSH-OUT</b>		<b>LBS</b>	1	1	100.00			100.00	
			2	1	100.00				
			3	1	100.00				
			4	1	100.00				
			5	1	100.00				
			6	1	100.00				
			7	1	100.00				

**TEST RESULTS** (Continued on next page)**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATED ONLY TO THE ITEMS TESTED.**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to seller's quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

  
**CHRISTOPHER R. FRIEDRICKSON QA MGR.**

SHIPPER#: 9947994956

Rev. 12/02 Form 1119



Aerospace Products  
Fullerton Operations  
800 S. STATE COLLEGE BLVD  
FULLERTON, CA 92831

# TEST REPORT

NO.  
8154161

Lot No.  
5340465-000

Supplier Item No.  
**BG5500**

Supplier Part No.  
**F5031-3BC**

## TEST RESULTS - Continued from previous page

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
		8	1	100.00				
		9	1	100.00				
		10	1	100.00				
		11	1	100.00				
		12	1	100.00				
		13	1	100.00				
		14	1	100.00				
		15	1	100.00				

Component #	Lot Number	Supplier Part No.	Supplier Item No.
1	<b>5337532-000</b>	<b>F5031-3BCFB</b>	<b>BG5510</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
	09/09/10	<b>BASKET 2 LUG C'SUNK RIVET</b>	

HEAT TREAT	PLATE/COAT		
<b>AMS-H-6875</b>	<b>AMS-QQ-P-35/AMS 2700</b>		

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
1 <b>AMS 5525-J</b>	<b>560127</b>	<b>AA16536B</b>	<b>CARPENTER TECHNOLOGY CORP</b>

## TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 110 Hardness HRC 32 MIN	RC	1	1	36.00				

Component #	Lot Number	Supplier Part No.	Supplier Item No.
2	<b>M010319-000</b>	<b>F5031-3XN</b>	<b>BG5570</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
	09/15/10	<b>NUT ELEMENT</b>	<b>.1900-32</b>

PLATE/COAT	HEAT TREAT	NON-DESTRUCT	PERFORMANCE
<b>AMS 2410</b>	<b>AMS-H-6875</b>	<b>ASTM E1417 SAMPLE</b>	<b>BPS-N-70 CL 125TC9</b>

PERFORMANCE			
<b>NASM25027</b>			

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
1 <b>AMS 5525-J</b>	<b>559637</b>	<b>AA16543D</b>	<b>CARPENTER TECHNOLOGY CORP</b>

## TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST 18 lbs max, 2.0 lbs min. (1,7 and 15)	IN#	1	1	8.15	8.20		2.00	18.00
TORQUE TEST BOLT CHAR: NAS9603			7	11.35	11.50			
			15	11.05	10.40			
		2	1	6.15	7.50			
			7	9.80	10.20			

## TEST RESULTS - Continued from next page

**THIS REPORT MUST NOT BE REPRODUCED OR EXCERPTED IN THE WHOLE OR IN PART, OR USED AS EVIDENCE IN A COURT OF LAW.**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

CHRISTOPHER J. FREDRICKSON QA MGR.

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
 Fullerton Operations  
 800 S STATE COLLEGE BLVD  
 FULLERTON, CA 92831

## TEST REPORT

NO.

8154161

Lot No.

5340465-000

Supplier Item No.  
**BG5500**

Supplier Part No.  
**F5031-3BC**

### TEST RESULTS - Continued from previous page

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
			15	10.45	10.60			
		3	1	9.00	9.20			
			7	10.65	10.95			
			15	9.80	1.80			
		4	1	7.70	8.15			
			7	9.90	9.85			
			15	10.90	10.90			
		5	1	10.35	11.00			
			7	10.30	10.10			
			15	9.40	9.75			
		6	1	5.10	6.75			
			7	8.30	9.15			
			15	5.35	10.50			
		7	1	8.80	8.90			
			7	10.00	10.25			
			15	10.45	10.30			
		8	1	10.10	10.40			
			7	10.30	10.80			
			15	9.70	10.40			
		9	1	7.20	7.85			
			7	8.35	8.65			
			15	10.75	11.10			
		10	1	7.20	8.80			
			7	10.30	10.60			
			15	6.05	11.25			
		11	1	7.90	8.45			
			7	10.25	10.40			
			15	5.10	10.45			
		12	1	8.90	9.50			
			7	10.50	10.35			
			15	10.40	11.10			
		13	1	8.15	8.40			
			7	11.25	11.50			
			15	9.95	11.25			
		14	1	8.85	10.25			
			7	10.90	10.85			
			15	10.10	11.65			
		15	1	10.20	10.60			
			7	11.30	11.65			
			15	10.10	10.45			

### TEST RESULTS - Continued on next page

**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN THE INDIVIDUAL COPY OF THIS TEST REPORT.**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

  
 CHRISTOPHER J. FRIEDRICKSON QA MGR.

NO.

Page 4 of 5



Aerospace Products  
Fullerton Operations  
800 S STATE COLLEGE BLVD  
FULLERTON, CA 92831

# TEST REPORT

8154161

Lot No.

5340465-000

Supplier Item No.  
**BGSS00**

Supplier Part No.  
**FS031-3BC**

<b>TEST RESULTS</b>		Continued on next page						
<b>TEST</b> No. Description	JOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
2 - 012 TORQUE TEST 18 lbs max, 2 lbs min, (1,7, and 15) TORQUE TEST BOLT CHAR: NAS6703U, BACB30LM3U	IN#	1	1	6.90	7.75		2.00	18.00
			7	8.65	9.10			
			15	9.15	9.20			
		2	1	5.85	6.85			
			7	6.50	6.60			
			15	7.50	8.45			
		3	1	7.60	7.85			
			7	8.50	8.35			
			15	7.75	8.15			
		4	1	6.35	6.90			
			7	7.80	7.60			
			15	3.50	8.50			
		5	1	7.35	8.40			
			7	3.30	9.10			
			15	9.15	10.05			
		6	1	6.65	7.40			
			7	7.25	7.70			
			15	8.70	9.10			
		7	1	7.15	7.70			
			7	7.45	7.65			
			15	7.90	7.85			
		8	1	7.10	7.45			
			7	7.35	7.35			
			15	8.40	8.25			
		9	1	7.55	8.20			
			7	8.15	8.35			
			15	9.05	9.20			
		10	1	5.70	6.75			
			7	6.05	6.50			
			15	7.30	7.40			
		11	1	7.20	7.55			
			7	8.05	8.45			
			15	8.75	9.35			
		12	1	7.55	7.80			
			7	8.40	8.55			
			15	7.65	8.05			
		13	1	7.05	7.85			
			7	8.40	8.50			
			15	8.65	8.55			
		14	1	6.75	7.30			

TEST RESULTS - Continued on next page

THIS REPORT TESTS ONLY THE PART NUMBER EXCEPT IN THE INDIVIDUAL CONDITIONS TESTED

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

CHRISTOPHER R. J. FRIEDRICKSON QA MGR.

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
 Fullerton Operations  
 800 S.STATE COLLEGE BLVD  
 FULLERTON, CA 92831

# TEST REPORT

8154161

Lot No.

5340465-000

Supplier Item No.  
BG5500Supplier Part No.  
F5031-3BC

## TEST RESULTS - Continued from previous page

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
3 - 020 TENSILE TEST 2825 lbs min per spec.	LBS	15	7 15 1 7 15	6.90 8.55 5.70 6.10 6.70	7.30 9.00 6.60 6.25 6.70			
		1	1	3690.00			2825.00	
		2	1	2980.00				
		3	1	2980.00				
		4	1	2980.00				
		5	1	2980.00				
		6	1	2980.00				
		7	1	2980.00				
		8	1	2980.00				
		9	1	2980.00				
		10	1	2980.00				
		11	1	2980.00				
		12	1	2980.00				
		13	1	2980.00				
		14	1	2980.00				
		15	1	2980.00				
4 - 110 HARDNESS HRC 38-44 (per drawing)	RC	1	1	39.00	41.00			

THIS REPORT IS NOT THE REPORT OF THE TESTER, EXCEPT IN THE HAND OF THE TESTER, AND IS NOT A TEST REPORT.

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CHRISTOPHER J. FREDRICKSON QA MGR.

CERTIFICATE OF TESTS  
CERT. SERIAL# 000737392

## ABNAHMEPRUEFZEUGNIS

## CERTIFICAT DE CONTROLE



Carpenter Technology Corporation  
101 West Barn Street, Reading, Pa. 19601  
Tel: (610) 205-2000 (800) 358-4592

07/27/10

CUSTOMER/BESTELLER/CLIENT

ALCOA FASTENING SYSTEMS  
FULLERTON OPERATIONP. O. BOX 3001  
FULLERTON CA 92631

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A VIOLATION UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW TITLE 18 CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES DRAWN FROM THE TOTAL LOT. CERTAIN DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADON, ALUMINA AND GAMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER / VERKAUFER / VENDEUR PAGE 1 OF 2

RAN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./HEFT-NR./N° DE RÉFÉRENCE INTERNE	DATE/DATE/DATE	WEIGHT/GEWICHT/Poids
220446302	W76259	07/27/10	558.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COUILLÉE: 560127 AA16536B

PRODUCT DESCRIPTION: CONSUMET A286 COLD FINISH SOLUTION ANNEALED  
PART NUMBER: 221419SPECIFICATION: AMS 5525 REV J (08/07)  
FAIRCHILD MS 300 REV 7 (01/17/03)  
FAIRCHILD MS 550 REV 2 (12/10/02)

SIZE 0.750000 X 0.020000 IN. ( 19.05 X 0.51 MM) FLT STP

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (OES)	MN (XRF)	SI (XRF)	P (OES)	S (OES)	CR (XRF)
0.05	0.31	0.20	0.016	0.001	14.20
NI (XRF)	MO (XRF)	CU (XRF)	CO (XRF)	AL (OES)	TI (OES)
24.89	1.21	0.12	0.20	0.16	2.16
V (XRF)	B (OES)				
0.26	0.0060				

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025.

HARDNESS AS SHIPPED, HRBW - 82 / 83

BEND TEST - SATISFACTORY

TENSILE STRENGTH, KSI (MPA) 97.5 ( 672 )  
ELONGATION IN 2.00", % 35.0

GRAIN SIZE PER ASTM E112: 10 (KALLINGS)

## CAPABILITY

1325 F ( 718 C ), 16 HR AIR COOL

YIELD STRENGTH (0.20%) KSI (MPA) 113.0 ( 779 )  
TENSILE STRENGTH, KSI (MPA) 162.0 ( 1117 )  
ELONGATION IN 2.00", % 20.0  
HARDNESS , HRC 32.08/4/10  
K-48

CONTINUED ON NEXT PAGE

Date Created: Tue Dec 28 14:25:56 2010

**SHIPPER#:** 9947994956

**CERTIFICATE OF TESTS**  
**CERT SERIAL# 000737392**



Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel. (610) 208-2000 (800) 338-4592

## **ABNAHMEPRÜFZEUGNIS**

**CERTIFICAT DE CONTROLE**

# CARPENTER

**CARPENTER**  
Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel. (610) 208-2000 (800) 338-4592

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  - MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
  - THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT

SELLER / VERKÄUFER / VENDEUR PAGE 2 OF 2

07/27/10

CUSTOMER / BESTSELLER / CLIENT

## **ALCOA FASTENING SYSTEMS FULLERTON OPERATION**

P O BOX 3001  
FULLERTON CA 92631

84

CIPS NUMBER/ORDER NO./BESCHAFFUNG NR. DE COMMANDE	LADENNR./NO. VÉHICULE/HORNO. DE REFERENCIA/INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/PESO
220446302	W76259	07/27/10	558.000

HEAT NUMBER / SCHMEID-NR. / N° DE COULEE: 560127

## CAPABILITY

1325 F ( 718 C), 16 HR AIR COOL

SMOOTH STRESS RUPTURE  
 TEST TEMP. 1200 F ( 649 C)  
 STRESS KSI (MPA) 67.5 ( 465)  
 TEST DISCONT. @ 23.0

TEST DISCONT. @ 23.0  
MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.  
MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIRE-  
MENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1,  
SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.  
CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2007 TO  
THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 07-0869 BY PERFORMANCE  
REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH  
3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE  
IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

DATE REVISED: 07/23/10 DAISY L TALBOT  
ADMINISTRATOR - QUALITY  
CARPENTER TECHNOLOGY CORPORATION

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**SHIPPER#:** 9947994956

Date Created: Tue Dec 28 14:25:56 2010

SHIPPER#: 9947994956

CERTIFICATE OF TESTS  
CISRT SERIAL# 000741119

ABNAHMEERLIEFZEUGNIS

CERTIFICAT DE CONTROLE

 CARPENTER

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 788-2000 (800) 338-4592

08/31/10

CUSTOMER/BESTELLER/CLIENT

ALCOA FASTENING SYSTEMS  
FULLERTON OPERATION

P O BOX 3001  
FULLERTON CA 92631

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SELLER/VERKAUFER/VENDEUR PAGE 1 OF 2

RAN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENZ INTERNE	DATE/DATUM/GATE	WEIGHT/GEWICHT/POIDS
220446302	W77661	08/31/10	3975.000

HEAT NUMBER / SCHMELZE NR. / N° DE COULEE: 559637 AA16543D  
PRODUCT DESCRIPTION: CONSUMET A286 COLD FINISH SOLUTION ANNEALED  
PART NUMBER: 222619

SPECIFICATION: AMS 5525 REV J (08/07)  
FAIRCHILD MS 300 REV 7 (01/17/03)  
FAIRCHILD MS 550 REV 2 (12/10/02)

SIZE 0.750000 X 0.032000 IN. ( 19.05 X 0.81 MM) FLT STP

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (OES)	MN (XRF)	SI (XRF)	P (OES)	S (OES)	CR (XRF)
0.04	0.34	0.17	0.017	LT .0005	13.76
NI (XRF)	MO (XRF)	CU (XRF)	CO (XRF)	AL (OES)	TI (OES)
24.39	1.18	0.15	0.31	0.17	2.19
V (XRF)	B (OES)				
0.24	0.0065				

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025.

HARDNESS AS SHIPPED, HRBW - 85 / 85

BEND TEST - SATISFACTORY

YIELD STRENGTH, (0.20 %) KSI(MPA) 46.8 { 323 }  
TENSILE STRENGTH, KSI(MPA) 92.5 { 638 }  
ELONGATION IN 2.00", % 38.0

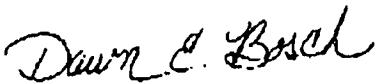
GRAIN SIZE PER ASTM E112: 10 (KALLINGS)

9/9/10 1324

CONTINUED ON NEXT PAGE

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SHIPPER#: 9947994956

CERTIFICATE OF TESTS CERT. SERIAL# 000741119		ABNAHMEPRUEFZEUGNIS	CERTIFICAT DE CONTROLE	
 <b>CARPENTER</b> Carpenter Technology Corporation 101 West Bern Street, Reading, Pa. 19601 Tel: (610) 208-2000 (800) 338-4592		<ul style="list-style-type: none"> <li>• THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.</li> <li>• THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.</li> <li>• MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADON, ALPHA AND GAMMA SOURCE CONTAMINATION.</li> <li>• THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.</li> </ul>		
08/31/10 CUSTOMER/BESTELLER/CLIENT		SELLER/VERKAUFER/VENDEDOR PAGE 2 OF 2		
ALCOA FASTENING SYSTEMS FULLERTON OPERATION P.O. BOX 3001 FULLERTON CA 92631		RAN		
CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/PESO	
220446302	W77661	08/31/10	3975.000	
HEAT NUMBER/SCHMELZE-NR./N° DE COULEE: 559637 CAPABILITY: 1325 F ( 718 C ), 16 HR AIR COOL HARDNESS 34HRC ( 7715N ) SMOOTH STRESS RUPTURE TEST TEMP 1200 F ( 649 C ) STRESS KSI(MPA) 67.5 ( 465 ) TEST DISCONT. @ 23.0 YIELD STRENGTH, (0.20 %) KSI(MPA) 116.0 ( 800 ) TENSILE STRENGTH KSI(MPA) 162.0 ( 1117 ) ELONGATION IN 2.00", %				
MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009. CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2007 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 07-0869 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.				
DAWN E. BOSCH ADMINISTRATOR - QUALITY CARPENTER TECHNOLOGY CORPORATION				
				
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P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
11	500	EA	MS20427M3-3		S141208005K	ALLFAST FASTENING	53551		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

# ALLFAST

## FASTENING SYSTEMS, INC.

P.O.Box 3166 - 15200 Don Julian Road  
City Of Industry, California 91745-1098  
Phone (626)968-9388 - Fax (626)968-9393  
[www.allfastinc.com](http://www.allfastinc.com)

### CERTIFICATE OF CONFORMANCE

DATE: 01/06/2015

CUSTOMER NAME: KLX AEROSPACE SOLUTIONS

PURCHASE ORDER: 0ZYMY47

PART NUMBER: MS20427M3-3 REV: 2

LOT CONTROL NUMBER: S141208005K

MATERIAL LOT NUMBER: S314514

MATERIAL VENDOR: CARPENTER TECHNOLOGY

CERTIFICATION NUMBER: 000178399

NOMENCLATURE: Solid Rivet

QUANTITY: 93 LB

SHIPPER NUMBER: 102140184136

DATE OF MANUFACTURE: 11/22/2014

HEAT LOT NUMBER: 569587

MATERIAL TYPE: MONEL

PROCUREMENT SPECIFICATION: N/A

SHEAR STRENGTH REQUIRED:	49,000 PSI - 59,000 PSI		
SHEAR TEST RESULTS:	1: 55,495 PSI	2: 55,636 PSI	
3: 56,378 PSI	4: 54,695 PSI	5:	
6:	7:	8:	
9:	10:		

ASTM GRAIN SIZE #:N/A

DRIVEABILITY: ACCEPTABLE

FINISH: N/A

COMMENTS: DFARS 252.225-7009 COMPLIANT. AIRBUS SAS APPROVAL NO. 30188.

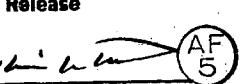
The undersigned hereby certifies that the product(s) supplied herewith were manufactured and inspected in accordance with all applicable drawings and specifications, and conforms to all applicable government and/or customer requirements. All supporting documentation is on file and is available for review upon request.

The aforementioned items were manufactured by Allfast Fastening Systems, Inc at 15200 Don Julian Road, City of Industry, California 91745.

This certification shall not be reproduced, except in full, without written approval of Allfast Fastening Systems, Inc. Recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal law.

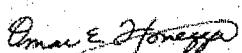
Country of origin: USA

B/E Aerospace, Inc. - Consumables Management  
Self Release

Signature and Stamp: 

Date: 11/6/2015





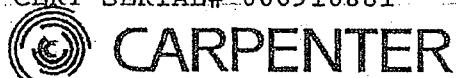


QUALITY ASSURANCE REPRESENTATIVE

Page 1 of 1

MANUFACTURERS OF AIRCRAFT AND COMMERCIAL FASTENERS

CERTIFICATE OF TESTS  
CERT SERIAL# .000910881



Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

MAR 05 2014

S314514

AF  
92

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SELLER / VERKAUFER / VENDEUR PAGE 1 OF 2

02/21/14  
CUSTOMER / BESTELLER / CLIENT

ALLFAST FASTENING SYSTEMS INC.  
P.O. BOX 3166  
CTY OF INDUSTRY, CA 91744

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
118023-17	LOS584101 L21433	02/21/14	667.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 569587

PRODUCT DESCRIPTION: NICKEL COPPER ALLOY 400 ANNEALED COLD FINISH SEAM FREE C  
----- HDG CL C3 PRECOAT/GREASE  
PART NUMBER: M-303-3

SPECIFICATION: ALLFAST M-303 (DASH NO. -3) REV Q (05/30/12) EXCPT LTR  
----- (08/19/10) APPROVED  
QQ-N-281D AMD 2 (10/23/85) (CLASS A)  
AS 7233 (CHEM.ONLY) (04/24/92) (CHEMISTRY ONLY)  
ALLFAST POS-100 (06/ /09)  
AS 9100 REV C (01/ /09)  
DFARS 1998 EDITION  
ALLFAST Q-102 REV G (03/19/07)

ALLOY VERIFICATION  
HAS BEEN PERFORMED

SIZE 0.093000 IN. ( 2.36 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (OES)	S (COM)	NI (XRF)
0.03	1.11	0.25	0.01	0.004	66.36
CU (XRF)	CO (XRF)	SN (MS )	AL (OES)	TI (XRF)	FE (XRF)
30.35	0.07	0.001	0.01	LT .01	1.62
NI+CO	PB (MS )	ZN (MS )			
66.43	0.001	0.002			

EACH LOT HAS BEEN SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH QQ-N-281D AMD 2 AND MEETS ALL SPECIFICATION REQUIREMENTS EXCEPT SIZE TOLERANCES.

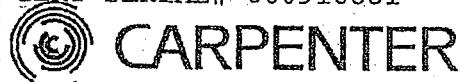
MATERIAL SUPPLIED MEETS THE TECHNICAL REQUIREMENTS OF THE SPECIFICATION(S) NOTED ON THIS ORDER.

THIS HEAT MELTED BY THE ELECTRIC ARC/AOD PROCESSES

SHEAR STRENGTH - 51.1 KSI RIVET TOOL SHEAR ASTM-B565 METHOD CONVERTED FROM DOUBLE RESTRAINED SHEAR

CONTINUED ON NEXT PAGE

CERTIFICATE OF TESTS  
CERT SERIAL# 000910881



Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

02/21/14

CUSTOMER/BESTELLER/CLIENT

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

**S314514**



- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER/VERKAUFER/VENDEUR PAGE 2 OF 2

ALLFAST FASTENING SYSTEMS INC.  
P.O. BOX 3166  
CTY OF INDUSTRY, CA 91744

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POTOS
118023-17	LOS584101 L21433	02/21/14	667.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 569587

TENSILE AS SHIPPED, LOAD VALUE:	KSI (MPA)	(COIL 1) 84.0 ( 579) 572 LBS	(COIL 2) 82.5 ( 569) 561 LBS	(COIL 3) 83.5 ( 576) 567 LBS
------------------------------------	-----------	------------------------------------	------------------------------------	------------------------------------

TENSILE AS SHIPPED, LOAD VALUE:	KSI (MPA)	(COIL 4) 84.0 ( 579) 569 LBS	(COIL 5) 83.0 ( 572) 564 LBS
------------------------------------	-----------	------------------------------------	------------------------------------

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. THIS CERTIFICATE OF TEST IS TYPE 3.1 PREPARED IN ACCORDANCE WITH EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

DANIELLE A MURPHY  
ADMINISTRATOR - QUALITY  
CARPENTER TECHNOLOGY CORPORATION

M-303-3



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
8	500	EA	MS27039C1-08		72807	MAC FASTENERS	0RFT4		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

# MACFASTENERS, INC.

## Packing List

Bill KLX INC.

To: 10000 NW 15TH TERRACE  
MIAMI, FL 33172

Ship B/E AEROSPACE CONSUMABLES MGMT  
To: 9835 NW 14th Street  
Miami, FL 33172  
United States

Shipment No: 69088  
Shipment Date: 04/24/15  
Ship Via: United Parcel Service  
Order Number: 50886  
Order Date: 04/19/14

Customer Code: BE AEROSPACE  
Phone: (305) 925-2600  
PO Number: 0XLP22  
Terms: Net 30 Days

LOT #72807

Item	Quantity					Description	Revision	Job Number
	Open	Shipped	Back Ord	Canceled	Unit			
7	50,000	54,530	0		M	MS27039C1-08 Screw machine pan head structural cross recessed A286 material		72807

Packing Clerk's Initials  
MACFASTENERS, INC.

Received In Good Order By  
B/E AEROSPACE CONSUMABLES MGMT

**MAC FASTENERS, INC.  
1110 ENTERPRISE  
OTTAWA, KANSAS 66067**

**CERTIFICATE OF CONFORMANCE  
AND  
MANUFACTURER'S AFFIDAVIT**

**CUSTOMER:** KLX AEROSPACE SOLUTIONS

**PO:** 0XLP22

**PART NUMBER:** MS27039C1-08

**REV:** 4

**LOT NUMBER:** 72807

**MANUFACTURED QUANTITY:** 60,000

**MILL HEAT NUMBER:** QQ972/13

**COUNTRY OF ORIGIN:** UNITED STATES OF AMERICA

**DFARS 252.225.7009 Compliant**

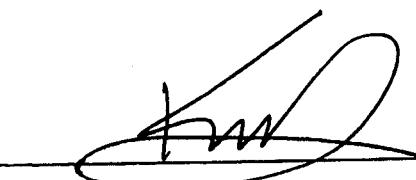
**MERCURY FREE CERTIFICATION**

MacFasteners certifies that the parts referenced in the above lot number  
do not contain Mercury or Mercury compounds, and were  
manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC  
FASTENERS within the United States, and were processed in accordance with all applicable drawings and  
specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4  
Mac Fasteners is an Airbus approved Supplier - 203399

**DATE:** 04/23/15



\_\_\_\_\_  
**QUALITY ASSURANCE REPRESENTATIVE**



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
 Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

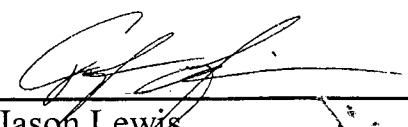
### **Material Certification**

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
13	400	EA	MS20601AD4W3		87836273	CHERRY AEROSPACE SAN	11815		

  
 Jason Lewis  
 Senior Director, Global Quality

05/08/15



**CHERRY®**  
AEROSPACE  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



# PACKING LIST

Order No: S0384202  
Order Date: 06/06/14  
Print Date: 09/16/14

Page: 1



Sold-To: 10015341

S O L D  T O	B/E AEROSPACE PO BOX 025263 MIAMI, FL 33102-5263 USA
--------------------------------	---

S H I P  T O	B/E AEROSPACE INC, CONSUMABLES MANAGEMENT 9835 NW 14TH ST MIAMI, FL 33172 USA
--------------------------------	---

Salesperson (s): 110

Credit Terms: NET 30  
Net 30

Purchase Order: OYNB23

Ship Via: FED EX NATIONAL CL  
FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0  
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE  
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS  
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

\*\*\*\*\*  
BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114.  
\*\*\*\*\*

GOODS OF UNITED STATES ORIGIN:

**TEST REPORTS ENCLOSED**

ECCN: EAR99

**DO NOT DESTROY**

\*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I  
\*PREFERENCE FOR DOMESTIC SPECIALTY METALS

Unless otherwise specified on this order, Cherry will manufacture and  
certify parts to the part number's latest revision. Latest revisions are  
shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under  
"Part Number Revision List".

\*\*\*\*\*  
INCORRECT AND UNAVAILABLE PART NUMBERS WILL BE LINED OUT ON PO  
CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY  
IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Ln	Item Number	Site T Location/Lot/Serial	Qty Open	Promised
			Qty to Ship	UM Shipped
1	CR9162-4-03	1600 Customer Item: MS20601AD4W3 D0603 87971281	EA 24300.0	10/09/14 ( )

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

**CERTIFICATION**

**ATTENTION: PURCHASING DEPARTMENT**

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

**Quality Assurance Representative**

Signed

SIM NGUYEN



**CHERRY®**  
AEROSPACE  
SPS Fastener Division, a PCC Company



# PACKING LIST

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA

Order No: SO384202  
Order Date: 06/06/14  
Print Date: 09/16/14

Page: 2



Sold-To: 10015341

S	B/E AEROSPACE
O	PO BOX 025263
L	MIAMI, FL 33102-5263
D	USA
T	
O	

S	B/E AEROSPACE INC,
H	CONSUMABLES MANAGEMENT
I	9835 NW 14TH ST
P	MIAMI, FL 33172
T	USA
O	

Ship-To: 10043053

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
1		10505 87836273	17300.0	( )	



**TEST REPORTS ENCLOSED  
DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

#### CERTIFICATION

#### ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

#### Quality Assurance Representative

Signed

SIM NGUYEN

*Best in Class***CERTIFIED TEST REPORT**<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC  
600 Kaiser Drive  
Heath, OH 43056-1088  
740-522-1151

**Miscellaneous Notes**

Made in USA

Chemical exceptions Fe 0.30-0.7 Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-11. The Newark facility is AS9100C:2009 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).

The products you inquired and ordered are not governed by any applicable industry standard or custom specifications. They are produced, tested and released as such. By placing an order, you acknowledge and accept the full responsibility and liability for their fitness for the intended end use or end uses.

**CERTIFICATION**

Kaiser Aluminum Fabricated Products, LLP ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

Steven J. Tua, Technical Manager

APR 24 2014



Beneke Wire Company, Inc.



A74728

Plant Serial: 35516

Kaiser Order Number: 172560092

Page 2 of 2

Line Item: 1

# BENEKE

## Product Certification And Testing Report

Customer:

CHERRY AEROSPACE LLC  
ATTN: ACCTS. PAYABLE  
1224 EAST WARNER AVENUE  
P.O. BOX 2157

SANTA ANA CA 92707-0157

Date >> 5/22/2014

Customer PO No.	BWC Lot No.	Date Shipped:
PO165732	26142	5/22/2014
Cust Item ID:	M051-0980	

BWC Item No.  
2F09808T3741A01

Description:  
.098" DIA. +/- .0005" 4F 2017 - T37  
#4 FINISH, ALUMINUM COLD HEADING WIRE X 22"  
BLOCKWOUND 100# COILS.

Specifications:

CUST SPEC	M-51	REV. L
FED SPEC	QQ-A-430	REV. C

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	Test Results					
													Diameter	Tensile	Yield	Peak Load	Grain Size	
													lbs	(in)	(psi)	(psi)	(lbs)	EL %
2017	.20 - .8	-.7	3.5 - 4.5	.40 - 1.0	.40 - .8	-.10	-.25	-.15	-.05	.15								
852901	.28	.17	3.9	.47	.49	.00	.01	.01										
													42235-1	337	0.0982	67,440.0		510.8
													42235-2	214	0.0982	69,380.0		525.5

Total Weight: 551

JUN - 2 2014



852901  
Beneke Wire Company  
A74944

Beneke Wire Company

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

Authorized  
Signature

Shannon King, Plant Metallurgist

Phone: (502) 367-6434

# KAISER

## ALUMINUM

### FABRICATED PRODUCTS

Kaiser Aluminum Fabricated Products, LLC  
600 Kaiser Drive  
Heath, OH 43056-1088  
740-522-1151

*Best in Class*

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER:	CUSTOMER PART NUMBER:	PRODUCT DESCRIPTION: ALY-JUMBO			
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:	
172560092	1	03/21/2014	2117		
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
5260 lbs.	23 pcs.	9419		0.000 in.	0.0 in.
SHIP TO:	SOLD TO:				
BENEKE WIRE COMPANY 5540 NATIONAL TURNPIKE LOUISVILLE, KY 40214	BENEKE WIRE COMPANY 5540 NATIONAL TURN PIKE LOUISVILLE, KY 40214				

Test Code: 8000

### Actual Physical Properties

Lot No.	No. Tests	WGU ksi
852763	1	MIN 21.7
		MAX 21.7

### Chemical Composition, WT. % (Aluminum Remainder)

Lot	Cast/Drop ChemID	Si	Fe	Cu	Mn	Mg	Cr	Zn
852763								
2-2F2	Act.	0.46	0.40	2.8	0.14	0.46	0.07	0.14
188927								
Chemical Limits	Min			2.2		0.20		
	Max	0.8	0.7	3.0	0.20	0.50	0.10	0.25
	Others	Each	0.05	Max		Total	0.15	Max

Beneke Wire Company  
852763



A74728

APR 24 2014





1224 East Warner Avenue  
Santa Ana, CA 92707-0157



Chemical Processing  
Heat Treating  
ISO/IEC 17025  
Material Testing Lab

An ISO9001 and AS9100 registered company. OASIS #6111041606

## Final Inspection & Test Report

Cherry® Rivet

### Customer Parts List

Lot I.D. No.: 87836273

Rev: 1

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
MS20601AD4W3	1	MIL-R-7885	D2



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	300	EA	MS24693-24B		52960	NORTH EAST FASTENERS	07ZNS		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15



QSLM Level 2/3  
Cage code: 07ZNS



Telephone:  
(860) 589-3242

Fax:  
(860) 589-6969

Web-Site: [www.NEF1.com](http://www.NEF1.com)  
E-mail: nef@NEF1.com

# CERTIFICATE OF CONFORMANCE

*This certifies that these fasteners are in conformance to the specifications required for this order and that these fasteners sold by North East Fasteners Corporation were manufactured at 8 Tremco Dr., Terryville, CT 06786 U.S.A.*

## Customer Order Information

Name :	B/E Aerospace Consumables Management	
Ship Date:	04/25/2014	NEF Part #:
P.O. #:	0WYX73	Heat #:
Qty Shipped:	52.500 m	Lot #:
Descri: 6-32 x 1/4" Phillips Flat 100° Marked With One Dash MS (2A) 302HQ Stainless DFARS Compliant Black Oxide Mil-DTL-13924D CL 4		
DFARS PER: 252.225-7014 ALT 1		

## Specifications

IFI	ISO
Customer Print	DIN
Metric IFI	JIS

## Other Specifications

DFARS CERT 252.225-7009

Print # : NASM24693-24B REV 3

Part # : MS24693-24B REV 3

Desc :

Dual :

Passed Magnetic Permeability,

This certifies that these fasteners are in conformance with the EU RoHS & WEEE Directives.

Mark Sova



\* This product has been mfg. in an environment free from contamination by Mercury or any of its compounds.

AS9100/ISO 9001-2008

QSLM Level 2/3

CAGE Code: 07ZNS

website: [www.nef1.com](http://www.nef1.com)



QSLM Level 2/3  
Cage code: 07ZNS



Telephone:  
(860)-589-3242  
Fax:  
(860)-589-6969  
Website: www.nefl.com  
e-mail: nef@nefl.com

PO Number: 0WYX73

Lot Number: 52960

Heat Number: RX9686

Specs: NASM24693

Description: 6-32 x 1/4" Phillips Flat 100° Marked With One Dash MS (2A) 302HQ Stainless DFARS Compliant Black Oxide Mil-DTL-13924D CL 4

Date: 04/21/2014

Lot Size: 110.00

### Axial Tensile Results

Requirements : 730 Lbs Min

Sample	Ultimate Tensile Strength (Lbs)
1	1014
2	1021
3	1012
4	1016
5	1013
6	1019
7	1017
8	1022

Joe Longo

Quality Control Manager



All tests listed on this certification have been performed in accordance with the required specifications named above. Calibrations are in accordance with ISO10012-1. The analysis reported on this certification is in accordance with North East Fasteners Quality Manual guidelines and methods.

UniMetal Surface Finishing,LLC.

135 S. Main St.

Thomaston, CT 06787

Phone:(860) 283-0271 Fax:(860) 283-8589

[www.UniMetal.com](http://www.UniMetal.com)

ISO 9001:2008 Certified

**Shipping Order**

S.O. No.	1059915
Ship Date	04/23/14
Page	1

**Ship To:**

NORTH EAST FASTENERS  
8 TREMCO DRIVE  
PLYMOUTH BUSINESS PARK  
TERRYVILLE, CT 06786



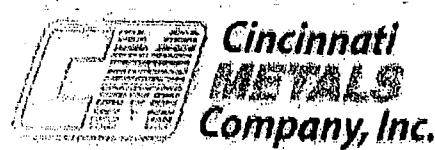
**Bill To:**

NORTH EAST FASTENERS  
8 TREMCO DRIVE  
PLYMOUTH BUSINESS PARK  
TERRYVILLE, CT 06786  
Phone: (860) 589- 3242

Qty Received	Notes Part No.& Description	Ship Via	Terms
110000.00 99.00 LBS	6-32X1/4" PHILL FLAT 100 MARKED WITH ONE DASH MS (2A) P.O.#: 20374 Job #: 192381 Lot #: 52960 Containers Shipped: 3 PANS Specs: BLACK OXIDE & OIL PER MIL-DTL-13924D CL 4 40-000	* Completed *	1.00%10NET30 110000.00 99.00 LBS

ISO No: UNI 7.5-4-17-004 REV3

Shipped By:\_\_\_\_\_ Received By:\_\_\_\_\_ Date Received:\_\_\_\_\_



8261 Cornell Road.  
Suite 620  
Cincinnati, OH 45249  
Ph: 800-999-2600  
Fax: 513-755-9603

# TEST CERTIFICATE

Bill To:  
**NORTH EAST FASTENERS CORP.**  
**P.O. BOX 322**  
**TERRYVILLE, CT 06786**

Ship To:  
**NORTH EAST FASTENERS CORP.**  
**8 TREMCO DRIVE**  
**TERRYVILLE, CT 06786**

**Customer PO#:** 022714

**Customer Part #:**

**Invoice Date:** 2/28/2014  
**Invoice:** 20157

**CMC SO:** 26029

**Ordered:** 3,677

**Line:** 7

**Shipped:** See Tags

**Item:** 3021140HQNM.CTD

**Item Desc:** .1140 DIA 302HQ SS WIRE X      **SPECS** ASTM A-493/05 ISO A3506 A2  
QQS-763F AMS-STD66/SAE AIR4127

**Certification Nbr:** RMI/SS/3225

## MATERIAL TEST RESULTS

**Heat:** 9686

### Chemical Composition %

	C	MN	P	S	SI	CR	NI	CU	MO	N
Actual:	0.015	0.8460	0.023	0.001	0.497	17.171	9.288	3.085	0.000	0.000

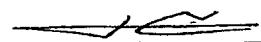
### Mechanical Properties

<u>Tensile Strength (KSI):</u>	<u>Country of Origin (Melt)</u>	<u>Alt Heat Number</u>	<u>DFAR Compliant (Y/N)</u>
78.49	FRANCE	327035	YES 252.225-7009

**Tag:** 30617      S      26029      1,790 lb  
**Tag:** 30621      S      26029      1,887 lb  
**Total Weight:**                                    3,677 lb

**received**  
3/3/14 ms

Material Test Results and Specifications are provided to  
Cincinnati Metals Company by the issuing mill.

  
John Cooper, QC



# Metal Industries Limited

Manufacturer-Exporter of Stainless Steel Wires & Bright Bars

Phone : +91-79-2754 3681-82-83-84 Fax : +91-79-2754 3085, 2656 8085 Website : [www.rajratna.com](http://www.rajratna.com) E-mail : [rajratna@rajratna.com](mailto:rajratna@rajratna.com)

## INSPECTION CERTIFICATE as per EN 10204-3.1

Customer	CINCINNATI METALS COMPANY, INC. UNITED STATES.							
Type of Material	S. S. WIRE				Certificate No.	RMI/SS/3225		
Quantity	11801.400 LBS (45 Coils)				Date of Issue	31.10.2013		
	PACKED ON CARRIERS NO. 07 to 13				Shipping Mark	RAAJRATNA CINCINNATI METALS CRYSTAL LAKE IL/USA MADE IN INDIA		
Type / Grade	302HQ				Invoice No.	RMI/E/635		
Size	0.114"				Date	31.10.2013		
Tolerance	+/-0.001"				CMC P. O. No.	13015		
App. Spec.	ASTM A-493/05, ISO A3506-A2, QQS-763F AMS-STD-66/ SAE AIR 4127							

The wire supplied as per details given above have been tested and found to satisfy requirements of your order and specification.

## TEST RESULTS

CHEMICAL COMPOSITION	%C	%Mn	%Si	%S	%P	%Ni	%Cr	%Cu
	0.015	0.846	0.497	0.0005	0.0234	9.288	17.171	3.085

HEAT NO. : RX -9686 Ugitech Heat No. : 327035

## MECHANICAL PROPERTIES

Coil No.	Dia Inch	U.T.S KSI	Finish
MIN	0.113"	70	
MAX	0.115"	79	
01.	0.1143"	78.49	COATED

"Country of Melt : France - DFARS Compliant." "Per 252.225-7009"

This material is tested for radioactive elements & no radioactive contamination detected.

Quality Department  
QR-824/15/1



Works : Bleshwarpura, Ahmedabad - Mehsana Highway, Taluka : Kalol, Dist : Gandhinagar, Pin-382729 Gujarat (India) Phone : +91-2764-233664, 233685 Fax : +91-2764-233663 E-mail : [work@rajratna.com](mailto:work@rajratna.com)  
Mumbai Off. : 126, Mittal Court, A-Wing, Nariman Point, Mumbai-400 021, Maharashtra (India) Phone : +91-22-2282 9342 / 44 / 45 / 46 Fax : +91-22-2282 9343 E-mail : [mumbai@rajratna.com](mailto:mumbai@rajratna.com)



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
16	400	EA	CR3523-4-02		87680508	CHERRY AEROSPACE SAN 11815			

  
Jason Lewis  
Senior Director, Global Quality

05/08/15



**AEROSPACE**  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA

Order No: SO364320  
Order Date: 11/29/11  
Print Date: 07/06/12

Page: 1



Sold-To: 10013612

Ship-To: 10042248

S O L D  T O	BE CONSUMABLES MGMT II LTD. SHOREHAM AIRPORT SHOREHAM BY SEA WEST SUSSEX BN43 5FN ENGLAND
--------------------------------	---

S H I P  T O	BE CONSUMABLES MGMT II LTD C/O DHL GLOBAL FORWARDING 4000 REDONDO BEACH REDONDO BEACH, CA 90278
--------------------------------	--

Salesperson (s):

Credit Terms: Net 60  
Net 60

Purchase Order: 4500104321

Ship Via: DANZAS

FOB: Origin - Collect

Remarks:

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114

\*\*\*\*\*  
FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010

Ln	Item Number	Site T Location	Lot/Serial	Qty Open	Qty to Ship	UM	Promised Shipped	
2	CR3523-4-02 Customer Item: ASNA0078E402 MBBN3012M3202 NAS9307M-4-02 B0207005M4-02 CAN43078M4-2  *****	1600				EA	08/01/12	
			H0403 87680508		5079.0		10 0 0 4 8 9 6 4 2	
			H0703 87679693		4953.0		10 0 0 4 8 9 6 4 3	
			I0105 87679924		3232.0		10 0 0 4 8 9 6 4 4	
			J0605 87680515		5290.0		10 0 0 4 8 9 6 4 5	
			K0404 87680507		5076.0		10 0 0 4 8 9 6 4 6	

**TEST REPORTS ENCLOSED  
DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

**CERTIFICATION**

**ATTENTION: PURCHASING DEPARTMENT**

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

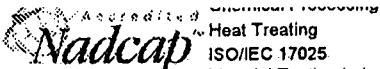
**Quality Assurance Representative**

Signed

**SIM NGUYEN**



1224 East Warner Avenue  
Santa Ana, CA 92707-0157



An ISO9001 and AS9100 registered company. OASIS #6111041606

# Final Inspection & Test Report

## CherryMax® Rivet

1000489642

Part Numbers	Rev	Proc. Spec.	Rev
CR3523-4-02	AC	PS-CMR-3000	R

\*\* See 2nd Page for the Customer Parts

Lot I.D. No.: 87680508

Lot Size: 5,500

MFG. Date: July 05, 2012

### ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87646323	A70002	QQ-N-281/MONEL	None	None
Stem	87662840	A70602	AMS5657 / 15-7PH	None	AS5272, Type 1, Moly Disulfide
Collar	00000000	A70719	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5483181

Final Lube: WAX

### QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION			DISASSEMBLY
	651		400		150			
	5	N/A	5	N/A	5		N/A	10
RESULTS	947		688		226			35
	941		671		243			40
	970		703		239			19
	957		676		239			12
	940		682		236			22

C=CR N=NAS  
M=MIL B=BAC  
LOAD VALUES  
IN POUND

PCS.	ITEM	STATUS	PCS.	ITEM	STATUS
20	EXAMINATION	PASS	20	INSTALLATION (Min and Max Grips)	PASS

### Comments:

Blind Fastener

Tr. Rev: -	Q Code
Rev. Date: 7/5/2012	V10
Inspector	J Segura

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.  
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

**A-1 WIRE TECH, INC.**

## Certified Material Test Report

HEAT/LOT

Load ID. 00084261

M49P5BR11

SOLD TO

Page 1

1000489642

**CHERRY AEROSPACE**  
**1224 East Warner Avenue**  
**Santa Ana, CA 92705**  
**USA**

SALES ORDER  
**105212 / 3**

Date Printed 03/19/2012

CUSTOMER P.O. PO129881-4	CUSTOMER PART M015.1230	QUANTITY 967.00	PIECES 8	SHIPMENT DATE 03/19/2012
-----------------------------	----------------------------	--------------------	-------------	-----------------------------

**PRODUCT:** Alloy: M400LC  
 Diameter: .123"  
 Length: X Coil M015  
 Temper:  
 Finish: Shaved, Soap Drawn  
 7044101-123-00-92

**CERTIFICATION REQUIREMENTS**  
**M015.123 REV AA, QQ-N281 D CLAS A FORM 7**  
**CHEMISTRY ONLY TO: AMS4730G**

**\*As Shipped Properties**

TEST	UNITS	RESULTS
*Tensile	ksi	116
*Yield	ksi	56
*Elongation	Percent	46
*Reduction Of Area	Percent	47
*Grain Size	Grain Si	7.5
*Hardness	HRB	100
<b>TEST</b>	<b>RESULT</b>	
*Wrap/Bend	Pass	

322  
APR 10 2012



A70002

**Chemical Analysis %**

C	Mn	Fe	S	Si	Cu	Ni	Al	P	Pb	Sn
.01	.86	1.51	.002	.16	32.47	64.89	.03	.007	PPM2.8	PPM4.2
Zn										
4.4PPM										

**Specifications**

\*Melt Source  
**DFARS COMPLIANT / MELT SOURCE: HUNTINGTON ALLOYS / COUNTRY OF ORIGIN: USA / MFG: USA**

Visual and dimensional examination

Satisfactory

Material, when shipped is free from contamination by mercury, radium, alpha source, and low melting point elements.

This is to certify that all required samplings, inspections, operations and tests performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and accurate. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the above data are in accordance with the specification requirements. The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under federal statute.

**Suzanne Mullins**  
**Quality Assurance Manager**

HUNTINGTON ALLOYS CORPORATION  
A Special Metals Company  
HUNTINGTON, WEST VIRGINIA 25705-1771

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

OTHER DIRECT-NOT ASSIGNABLE TO DIS

A-1 WIRE TECH INC  
52800 HIGGINS BLVD  
ELKHART IN 46514

A-1 WIRE TECH  
C/O SMC ACCOUNTS PAYABLE  
1401 BURRIS ROAD  
NEWTON, NC 28658

CERTIFIED MATERIAL TEST REPORT		No.
HA ORDER NO/ITEM 300024020 1	DATE 02/09/12	PAGE OF 2 2
QUANTITY 10964 LBS	INSPECTED BY HA/SMC	
CHARGE ORDER NO. 32588-1	MARK ORDER NO. 32588-1	
DESCRIPTION OF MATERIAL SHIPPED	MONEL ALLOY 400 HR ROD - COIL PXL ANN .3750 IN COIL COIL	

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. 8/08

A70002



A-1 Wire-  
M49PSBR11

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

NO WELDING OR WELD REPAIR WAS PERFORMED.



APR 10 2012

ASME QUALITY SYSTEMS CERTIFICATE QSC-328 EXPIRES 3/25/2014, AND AS APPLICABLE, ASME QUALITY SYSTEMS ANY SUBCONTRACTED WORK ALSO COMPLIES WITH CUSTOMER & ASME SECTION III, NCA 3800 REQUIREMENTS. THIS CERTIFICATION AFFIRMS THAT THE CONTENTS OF THIS REPORT ARE CORRECT AND ACCURATE AND THAT ALL TEST RESULTS AND OPERATIONS PERFORMED BY SPECIAL METALS CORPORATION, INC. OR ITS SUBCONTRACTORS ARE IN COMPLIANCE WITH THE MATERIAL SPECIFICATIONS AND THE SPECIFIC APPLICABLE MATERIAL REQUIREMENTS OF ASME SECTION III.

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIAUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE), ANNEX I, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 30, 2014)."

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 127805 (EXPIRES APRIL 30, 2013) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION.

MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REV. 49, DATED 2/17/2011

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :  
W.E. BOLEN, M.A. MORRISON, D.K. MILLER, J.L. JEFFREY



## CARPENTER

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

1000489642

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

05/23/12

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKÄUFER/VENDEUR PAGE 1 OF 2

CHERRY AEROSPACE LLC  
PO BOX 2157  
1224 E WARNER  
SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO131621	LOS664001 L24962	05/23/12	1468.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 565484

PRODUCT DESCRIPTION: CARPENTER 15-7 PH ANNEALED COLD FINISH C HDG SC2 STRAND CU/SOAP JIT

SPECIFICATION: CHERRY AEROSPACE M-84 REV AC (06/22/10) EXCPT LTR (07/25/11)  
----- PENDING  
----- AMS 5657 REV C (08/ /07) (CHEM ONLY)

SIZE 0.083000 IN. ( 2.11 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.08	0.55	0.37	0.015	0.001	15.37
NI (XRF)	MO (XRF)	AL (XRF)	N (FUS)		
7.20	2.14	1.30	0.036		

CAPABLE OF SURFACE FINISH OF 63 RMS MAX

MICRO SURFACE DEFECT - ACCEPTABLE (LOT 2) (COILS 1-9 F &amp; B) (LOT 4) (COILS 1-6 F &amp; B)

HARDNESS AS SHIPPED, HV 311 (CENTER)  
----- PER ASTM E384 500 GRAM LOAD

(T) RANSVERSE YIELD STRENGTH, %	(L) ONGITUDINAL TENSILE STRENGTH, KSI(MPA)	L 116.0 ( 800)
TENSILE STRENGTH, KSI(MPA)	165.0 ( 1138)	
ELONGATION IN .33", %	34.0	

CAST TEST: ACCEPTABLE

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.  
MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIRE-  
MENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1,  
SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

MAY 25 2012

Carpenter Corp.  
565484

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

**Radcliff Wire Inc.** 97 Renzo Rd., P.O. Box 603, Bristol, CT 06010

Date Shipped: **5/25/2012**

PO #: **VP125694**

Qty. Shipped: **36LBS 5-BLACK  
MIGS SPOOLS**

Radcliff No.: **124673**

Heat No.: **QL073**

Customer: **CHERRY AEROSPACE  
SANTA ANA OPERATIONS  
1224 EAST WARNER AVE  
SANTA ANA, CA 92705-5414**

Country of Origin: **FRANCE**

Original Mill Source: **USA**

Size: **.006 X .011 X .056 \*\*\***

Notes:

**CONSIGNMENT ORDER  
PART # M189.44 REV W  
DFAR COMPLIANT**

Material: **A286 Stainless Steel**

Description: **SPECIAL SHAPE M189.44 REV W**

Specification: **AMS 5731 REV L, AMS 5737 REV P  
CHEM ONLY**

**Chemical Properties**

Al: 0.2%	B: 0.007%	Bi: <0.00002%	C: 0.04%	Co: 0.08%
Cr: 14.79%	Cu: 0.07%	Fe: BAL%	Mn: 1.7%	Mo: 1.25%
Ni: 24.52%	P: 0.015%	Pb: <0.0001%	S: 0.001%	Si: 0.05%
Ti: 2.29%	V: 0.3%			

Tensile:

Rockwell: **105,000 PSI**

**JUL 06 2012**



RADCLIFF WIRE INC.  
QL073  
  
**A70719**

Certs/Material

**Lisa Piatek**

Certification Clerk

The material as shipped is free from mercury contamination

**CERTIFICAT DE RECEPTION 3.1-EN 10204 n°C061485/1**  
**Inspection certificate - Abnahmeprüfzeugnis**

Usine - Works - Werk  
**Stainless & Nickel Alloys**  
**58160 IMPHY FRANCE**  
 Telephone: 03 86 21 30 00  
 Télecopie: 03 86 21 31 00

**1000489642**

Client Customer Kunde	CENTRAL W UNION	N° Référence Our reference Unser Auftrag Nr.	292457/01
V/Commande Your order Ihre Bestell. Nr.	2009005	du From:	11.23.10
Spécification Specification Vorschrift	D.3.PRS.010.S RE.A 07/01/09		

Produit Product Erzeugnisform	SY 286 WIRE ROD DIAM/5.5000/MM SS A286 : MELTING ROUTE EF + VAR	Etat de livraison Condition of delivery: Lieferzustand	SOFT ANN/PICKL.
		N° de Fabric. Manufact.Nr. Fabrik.Nr.	4100233762
Reprise Marking Markierung	Ø (.217")	Poids Weight Gewicht	3591.290 LB
		Nombre Part Nb. Stückzahl	4 PI

COMPOSITION CHIMIQUE CHEMICAL COMPOSITION CHEMISCHE ZUSAMMENSETZUNG										Coulée N° Heat Nr. Schmelze Nr.
C	Mn	S	S	P	N	Cr	Mo	Cu	Co	
.04	1.70	.05	.001	.015	24.52	14.79	1.25	.07	.08	
N	A	T	PB	B	B	Fe				
.30	.20	2.29	<.0001	<.00002	.007	bal.				

**CARACTERISTIQUES MECANIQUES ET AUTRES ESSAIS / TESTS RESULTS**

**ETAT DE LIVRAISON**  
 CONDITION OF DELIVERY

RESISTANCE ..... TENSILE STRENGTH.... : 617 MPa **89,488 psi**  
 GRAIN ASTM..... SIZE ASTM..... : 6 ASTM

HYPERTREMPE 980°1H EAU+VIEILLISSEMENT 720°16H AIR  
 HEAT TREATMENT OF SPECIMEN 1800°F/H WATER+1325°F 16H AIR

LIMITE ELASTIQUE. YIELD STRENGTH 0.2% : 691 MPa  
 RESISTANCE ..... TENSILE STRENGTH.... : 1078 MPa  
 ALLONGEMENT..... ELONGATION SUR 40... : 25.0 %  
 STRACTION..... RED. OF AREA..... : 56.0 %  
 DURETE HB..... HARDNESS..... : 292 HB

**FLUAGE**

STRESS RUPTURE (FST) AT 1200°F (649°C)

UNDER 70,000 PSI (483MPA)

DUREE DE VIE..... TIME..... 136.7 H

JUL 06 2012

RADCLIFFE WIRE, INC.  
OL073



**A70719**

QUALITY CONTROL

DUPUIS G.

Signature  
Signature  
Unterschrift

11.29.10  
Imphy plant

Voir page suivante

PAGE N°: 1

**CERTIFICAT DE RECEPTION 3.1-EN 10204 n°C061485/1**  
**Inspection certificate - Abnahmeprüfzeugnis**

**1000489642**

<b>Client Customer Kunde</b>	CENTRAL W UNION	<b>N° Référence Our reference Unser Auftrag Nr.</b>	292457/01
<b>V/Commande Your order Ihre Bestell. Nr.</b>	2009005	<b>DU OF Von</b>	11.23.10
<b>Spécification Specification Vorschriften</b>	D.3.PRS.010.S RE.A 07/01/09		

ALLONGEMENT..... ELONGATION..... 16.0 %

**ETAT HYPERTREMPE 900° + VIEILLISSEMENT 720°16H AIR**

HEAT TREATMENT OF TEST SPECIMEN 1650°F IH WATER+1325°F16H AIR

LIMITE ELASTIQUE.....	YIELD STRENGTH 0.2%.....	744 MPA
RESISTANCE.....	TENSILE STRENGTH.....	1102 MPA
ALLONGEMENT.....	ELONGATION SUR 4D.....	19.0 %
STRICTION.....	RED. OF AREA.....	58.0 %
DURETE HB.....	HARDNESS.....	318 HB

**FLUAGE**

STRESS RUPTURE TEST AT 1200°F (649°C)

UNDER 65,000 PSI(448MPA)

DUREE DE VIE..... TIME..... : 158.9 H

ALLONGEMENT..... ELONGATION..... : 20.4 %

NO WELDING WITH FILLER METAL HAS BEEN PERFORMED  
 STRESS RUPTURE AND AGE HARDENING AND CHEMISTRY TO MEET  
 LATEST ISSUE OF AMS 5731L, AMS 5732J, 5734K AND 5737P  
 ARCELORMITTAL SNA CERTIFIES THAT THIS MATERIAL HAS BEEN  
 MELTED/PRODUCED IN FRANCE, QUALIFYING COUNTRY, AS REQUIRED BY  
 DFARS 252.225-7014  
 MATERIAL IS FREE FROM MERCURY, RADIA, OR ALPHA SOURCE  
 CONTAMINATION  
 THE WILLFUL RECORDING OF FALSE OR FRAUDULENT STATEMENTS ON THIS  
 DOCUMENT MAY RESULT IN PUNISHMENT AS A FELONY UNDER FEDERAL  
 STATUTES

JUL 06 2012



BIRN, ON  
DUMAS, AR  
LANCASTER, SC

519-833-9832 FAX 519-833-2213  
870-382-2980 FAX 870-382-6988  
803-283-3353 FAX 803-283-6303



FOND DU LAC, WI 920-926-0609 FAX 920-926-0652  
UNION, IL 815-923-2131 FAX 815-923-2126  
PERRIS, CA 951-657-2105 FAX 951-943-6081

CENTRAL WIRE  
6509 OLSON ROAD  
TEL: 815-923-2131

UNION, IL 60180-9730  
FAX: 815-923-2126

THE LEADING MANUFACTURER OF STAINLESS STEEL AND NICKEL ALLOY WIRE PRODUCTS  
EXECUTIVE OFFICES: PERTH, ON CANADA - EMAIL: sales@centralwire.com

## CERTIFICATE OF CONFORMANCE

SOLD TO  
RADCLIFF WIRE INC.  
P. O. BOX 603  
BRISTOL  
USA

CT 06011-0603

SHIP TO

RADCLIFF WIRE INC.  
97 RONZO ROAD  
BRISTOL  
USA

CT 06011-0603

1000489642

CUSTOMER'S PO NO.	TYPE OF CERT	CUSTOMER	ORDER NO.	WORK ORDER	DATE SHIPPED
45088	Customer	124610	1172917	2 4133115	4/30/12

SPECIFICATIONS:

### ITEM DESCRIPTION

DESCRIPTION	SPEC. CLASS	HEAT
Forming A286SF SKIN PASSED Bright .0300 200LB.Plas Clean	QL073	
Melt mill Arcelor Mittal Country of origin France	QTY SHIP 367	044

### CHEMICAL ANALYSIS

C .04	MN 1.70	SI .05	P .015	S .001	CR 14.79	NI 24.52
MO 1.25	CU .07	CO .08	AL .20	TI 2.29	FE Balance	B .007
V .30	< BI .00002	< PB .0001				

### MECHANICAL PROPERTIES

AS SHIPPED PROPERTIES:

TENSILE 117.000 KSI MIN	TENSILE 122.000 KSI MAX						
-------------------------------	-------------------------------	--	--	--	--	--	--

AFTER HEAT TREAT PROPERTIES:

--	--	--	--	--	--	--	--

"PASSIVATED IN PROCESS"

JUL 06 2012



RADCLIFF WIRE, INC.  
QL073

A70719

The material as shipped is free from mercury contamination. I certify the chemical analysis and physical and mechanical test results reported above are correct as contained in the records of the company.

Very truly yours,

DAVID J. MENGE  
AUTHORIZED SIGNATURE



## CARPENTER

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

1000489642

05/23/12  
CUSTOMER/BESTELLER/CLIENT

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER / VERKÄUFER / VENDEUR PAGE 2 OF 2

CHERRY AEROSPACE LLC  
PO BOX 2157  
1224 E WARNER  
SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./Nº DE COMMANDE	CARPENTER NO./WERKS-NR./Nº DE REFERENCIE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO131621	LOS664001 L24962	05/23/12	1468.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE : 565484  
THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

SHERRY L KREIDER  
ADMINISTRATOR - QUALITY  
CARPENTER TECHNOLOGY CORPORATION

MAY 25 2012

AUDIT

A70602  
Carpenter Corp.  
565484

*Sherry Kreider*

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HUNTINGTON ALLOYS CORPORATION  
A Special Metals Company

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

OTHER DIRECT-NOT ASSIGNABLE TO DIS

CERTIFIED MATERIAL TEST REPORT		No.	28150
HA ORDER NO/ITEM 300024020 1	DATE 02/09/12	PAGE OF	1 2
QUANTITY 10964 LBS	INSPECTED BY HA/SMC		
CHARGE ORDER NO. 32568-1	MARK ORDER NO. 32568-1		
DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 .3750 IN COIL	HR ROD - COIL PKL ANN COIL		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. B0B

A-1 WIRE TECH  
C/O SMC ACCOUNTS PAYABLE  
1401 BURRIS ROAD  
NEWTON, NC 28658

\*\*\*\*\*THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.\*\*\*\*\*

SPECIFICATIONS: US FED QQ-N-2810 AM 2 CL A CHEM ONLY  
ASTM B 164-03 (2008) CHEM ONLY  
ASME SB-164 2010 EDITION 11 ADDENDA CHEM ONLY  
SAE AMS 4730F CHEM ONLY\NACE MR0175-ISO 15156-3 (2009)\  
GE S-400 (10-10-2008)\GE S-1000 (3-2-2010)\  
ASME SECTION III 2010 EDITION 11 ADDENDA NCA-3800\  
A-1 M400LC MOD FOR CUST 295-01 REV 4-11-08.\  
QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125);  
EN 10 204/DIN 50049 (TYPE 3.1)

UNS:N04400

CHEMICAL ANALYSIS (WT. %)

HEATS	C PB/PPM	MN SN/PPM	FE ZN/PPM	S	SI	CU	NI	AL	P
M49PSBR	0.01 2.8	0.86 4.2	1.51 4.4	0.002	0.16	32.47	64.89	0.03	0.007

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

THE % OF NICKEL INCLUDES A SMALL AMOUNT OF COBALT  
TO CONVERT PPM TO WT.% , MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.

MELT METHOD: AIM

APR 10 2012



A-1 Wire Tech  
M49PSBR:1  
A7002

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARDNESS	GRAIN SIZE	YIELD STRENGTH XPSI	TENSILE STRENGTH PSI	X 100	X 100	R/A %	DEG F
----------	----------	----------	------------	------------------------	-------------------------	-------	-------	-------	-------

M49PSBR 11 14 PCS

ROOM TEMP-HRB -AS SHIPPED \*\*\* 54.1 0239 0674 57.6 81.4

GRAIN SIZE-AS SHIPPED AGS ASTM NO. 5.5

NORMAL - TRAN

\*\*\* TENSILE SPECIMEN GAUGE LENGTH - 01.500

## Certified Material Test Report

HEAT/LOT

SOLD TO

Load ID. 00084261

Page 2

1000489642 M49P5BR11

**CHERRY AEROSPACE**  
 1224 East Warner Avenue  
 Santa Ana, CA 92705  
 USA

SALES ORDER  
 105212 / 3

Date Printed 03/19/2012

CUSTOMER P.O. PO129881-4	CUSTOMER PART M015.1230	QUANTITY 967.00	PIECES 8	SHIPMENT DATE 03/19/2012
<b>PRODUCT:</b> Alloy:M400LC				
Diameter:.123"				
Length:X Coil M015				
Temper:				
Finish:Shaved, Soap Drawn 7044101-123-00-92				

End of Certification


  
 APR 10 2012

A-1 Wire



A70002

Visual and dimensional examination:  
 Satisfactory  
 Material, when shipped is free from  
 contamination by mercury, radium,  
 alpha source, and low melting  
 point elements.

This is to certify that all required samplings, inspections, operations and tests performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and accurate. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the above data are in accordance with the specification requirements. The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under federal statute.

Suzanne Mullins  
 Quality Assurance Manager

An ISO9001 and AS9100 registered company. OASIS #6111041606

## Customer Parts List

Lot I.D. No.: **87680508**  
Rev: -

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
ASNA0078E402	P	NAS1687	2
ASNA0078E402	P	PS-CMR-3000	R
B0207005M4-02	E	NAS1687	2
B0207005M4-02	E	PS-CMR-3000	R
CAN43078M4-2	8	NAS1687	2
CAN43078M4-2	8	PS-CMR-3000	R
MBBN3012M3202	01/06	MBBN3015	12/03
NAS9307M-4-02	4	NAS1687	2

Parts delivered in accordance with the standard amendments as agreed by Cherry/EADS.

\*\*\* Ref: M7885/4-4-02



**AEROSPACE**  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA

Order No: SO364320  
Order Date: 11/29/11  
Print Date: 07/06/12

Page: 1



Sold-To: 10013612



Ship-To: 10042248

S O L D  T O	BE CONSUMABLES MGMT II LTD. SHOREHAM AIRPORT SHOREHAM BY SEA WEST SUSSEX BN43 5FN ENGLAND
--------------------------------	---

S H I P  T O	BE CONSUMABLES MGMT II LTD C/O DHL GLOBAL FORWARDING 4000 REDONDO BEACH REDONDO BEACH, CA 90278
--------------------------------	--

Salesperson (s):

Credit Terms: Net 60  
Net 60

Purchase Order: 4500104321

Ship Via: DANZAS

FOB: Origin - Collect

Remarks:

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114

\*\*\*\*\*  
FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010

Ln	Item Number	Site T Location	Lot/Serial	Qty Open	Qty to Ship	UM	Promised Shipped	
2	CR3523-4-02 Customer Item: ASNA0078E402 MBBN3012M3202 NAS9307M-4-02 B0207005M4-02 CAN43078M4-2  *****	1600				EA	08/01/12	
		H0403	87680508		5079.0		10 0 0 4 8 9 6 4 2	
		H0703	87679693		4953.0		10 0 0 4 8 9 6 4 3	
		I0105	87679924		3232.0		10 0 0 4 8 9 6 4 4	
		J0605	87680515		5290.0		10 0 0 4 8 9 6 4 5	
		K0404	87680507		5076.0		10 0 0 4 8 9 6 4 6	

**TEST REPORTS ENCLOSED  
DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

**CERTIFICATION**

**ATTENTION: PURCHASING DEPARTMENT**

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

**Quality Assurance Representative**

Signed \_\_\_\_\_

**SIM NGUYEN**

**1000489642**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.:	87680508
CR3523-4-02		AC PS-CMR-3000	R	Lot Size:	5,500
** See 2nd Page for the Customer Parts					MFG. Date: July 05, 2012

**ASSEMBLY DATA**

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87646323	A70002	QQ-N-281/MONEL	None	None
Stem	87662840	A70602	AMS5657 / 15-7PH	None	AS5272, Type 1, Moly Disulfide
Collar	00000000	A70719	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5483181

Final Lube: WAX

**QUALITY CONFORMANCE/ACCEPTANCE RESULTS**

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION			DISASSEMBLY
	651		400		150			10
	5	N/A	5	N/A	5		N/A	5
	C-N	B	C-N	B	C-N		B	C-N
RESULTS	947		688		226			35
	941		671		243			40
	970		703		239			19
	957		676		239			12
	940		682		236			22

C=CR N=NAS  
M=MIL B=BAC  
LOAD VALUES IN POUND

PCS.	ITEM	STATUS	PCS.	ITEM	STATUS
20	EXAMINATION	PASS	20	INSTALLATION (Min and Max Grips)	PASS

**Comments:**

Blind Fastener

Tr. Rev: -	Q Code
Rev. Date: 7/5/2012	V10
Inspector	J Segura
	

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.  
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

# A-1 WIRE TECH, INC.

## Certified Material Test Report

HEAT/LOT

SOLD TO

Load ID. 00084261

M49P5BR11

Page 1

1000489642

CHERRY AEROSPACE  
1224 East Warner Avenue  
Santa Ana, CA 92705  
USA

SALES ORDER  
105212 / 3

Date Printed 03/19/2012

CUSTOMER P.O. PO129881-4	CUSTOMER PART M015.1230	QUANTITY 967.00	PIECES 8	SHIPMENT DATE 03/19/2012
-----------------------------	----------------------------	--------------------	-------------	-----------------------------

PRODUCT: Alloy:M400LC  
Diameter:.123"  
Length:X Coil M015  
Temper:  
Finish:Shaved, Soap Drawn  
7044101-123-00-92

CERTIFICATION REQUIREMENTS  
M015.123 REV AA, QQ-N281 D CLAS A FORM 7  
CHEMISTRY ONLY TO: AMS4730G

### \*As Shipped Properties

TEST	UNITS	RESULTS
*Tensile	ksi	116
*Yield	ksi	56
*Elongation	Percent	46
*Reduction Of Area	Percent	47
*Grain Size	Grain Si	7.5
*Hardness	HRB	100
TEST	RESULT	
*Wrap/Bend	Pass	

APR 10 2012



A70002

### Chemical Analysis %

C	Mn	Fe	S	Si	Cu	Ni	Al	P	Pb	Sn
.01	.86	1.51	.002	.16	32.47	64.89	.03	.007	PPM2.8	PPM4.2

Zn  
4.4PPM

### Specifications

\*Melt Source  
DFARS COMPLIANT / MELT SOURCE: HUNTINGTON ALLOYS / COUNTRY OF ORIGIN: USA / MFG: USA

Visual and dimensional examination  
Satisfactory  
Material, when shipped is free from  
contamination by mercury, radium,  
alpha source, and low melting  
point elements.

This is to certify that all required samplings, inspections, operations and tests performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and accurate. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the above data are in accordance with the specification requirements. The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under federal statute.

Suzanne Mullins  
Quality Assurance Manager

HUNTINGTON ALLOYS CORPORATION  
A Special Metals Company

OTHER DIRECT-NOT ASSIGNABLE TO DIS

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

A-1 WIRE TECH INC  
52800 HIGGINS BLVD  
ELKHART IN 46514

A-1 WIRE TECH  
C/O SMC ACCOUNTS PAYABLE  
1401 BURRIS ROAD  
NEWTON, NC 28658

CERTIFIED MATERIAL TEST REPORT		No. 28150
HA ORDER NO/ITEM 300024020 1	DATE 02/09/12	PAGE OF 2 2
QUANTITY 10964 LBS	INSPECTED BY HA/SMC	
CHARGE ORDER NO. 32588-1	MARK ORDER NO. 32588-1	
DESCRIPTION OF MATERIAL SHIPPED	MONEL ALLOY 400 HR ROD - COIL PXL ANN .3750 IN COIL COIL	

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. 8/06

A70002



A-1 Wire-  
M49P5BR11

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

NO WELDING OR WELD REPAIR WAS PERFORMED.



APR 10 2012

ASME QUALITY SYSTEMS CERTIFICATE QSC-328 EXPIRES 3/25/2014, AND AS APPLICABLE, ASME QUALITY SYSTEMS ANY SUBCONTRACTED WORK ALSO COMPLIES WITH CUSTOMER & ASME SECTION III, NCA 3800 REQUIREMENTS. THIS CERTIFICATION AFFIRMS THAT THE CONTENTS OF THIS REPORT ARE CORRECT AND ACCURATE AND THAT ALL TEST RESULTS AND OPERATIONS PERFORMED BY SPECIAL METALS CORPORATION, INC. OR ITS SUBCONTRACTORS ARE IN COMPLIANCE WITH THE MATERIAL SPECIFICATIONS AND THE SPECIFIC APPLICABLE MATERIAL REQUIREMENTS OF ASME SECTION III.

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE). ANNEX I, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE #1734 (EXPIRES JULY 30, 2014)."

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 127805 (EXPIRES APRIL 30, 2013) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION.

MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REV. 49, DATED 2/17/2011

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :  
W.E. BOLEN, M.A. MORRISON, D.K. MILLER, J.L. JEFFREY



## CARPENTER

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel: (610) 208-2000 (800) 338-4592

05/23/12  
CUSTOMER/BESTELLER/CLIENT

1000489642

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SELLER/VERKÄUFER/VENDEUR PAGE 1 OF 2

CHERRY AEROSPACE LLC  
PO BOX 2157  
1224 E WARNER  
SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP  
101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO131621	LOS664001 L24962	05/23/12	1468.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 565484

PRODUCT DESCRIPTION: CARPENTER 15-7 PH ANNEALED COLD FINISH C HDG SC2 STRAND CU/SOAP JIT

SPECIFICATION: CHERRY AEROSPACE M-84 REV AC (06/22/10) EXCPT LTR (07/25/11)  
----- PENDING  
----- AMS 5657 REV C (08/ /07) (CHEM ONLY)

SIZE 0.083000 IN. ( 2.11 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.08	0.55	0.37	0.015	0.001	15.37
NI (XRF)	MO (XRF)	AL (XRF)	N (FUS)		
7.20	2.14	1.30	0.036		

CAPABLE OF SURFACE FINISH OF 63 RMS MAX

MICRO SURFACE DEFECT - ACCEPTABLE (LOT 2) (COILS 1-9 F &amp; B) (LOT 4) (COILS 1-6 F &amp; B)

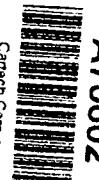
HARDNESS AS SHIPPED, HV 311 (CENTER)  
PER ASTM E384 500 GRAM LOAD

(T) RANSVERSE YIELD STRENGTH, KSI(MPA)	(L) ONGITUDINAL TENSILE STRENGTH, KSI(MPA)	L 116.0 ( 800)
TENSILE STRENGTH, KSI(MPA)	165.0 ( 1138)	
ELONGATION IN .33", %		34.0

CAST TEST: ACCEPTABLE

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.  
MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIRE-  
MENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1,  
SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

MAY 25 2012

Carpenter Corp.  
565484

CONTINUED ON NEXT PAGE

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Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

**Radcliff Wire Inc.** 97 Ronzo Rd., P.O. Box 603, Bristol, CT 06010

Date Shipped:

PO #:

Qty. Shipped:

Radcliff No.:

Heat No.:

Customer: CHERRY AEROSPACE  
SANTA ANA OPERATIONS  
1224 EAST WARNER AVE  
SANTA ANA, CA 92705-5414

Country of Origin: FRANCE

Original Mill Source: USA

Size: .006 X .011 X .056 \*\*\*

Notes:  
CONSIGNMENT ORDER  
PART # M189.44 REV W  
DFAR COMPLIANT

Material: A286 Stainless Steel

Description: SPECIAL SHAPE M189.44 REV W

Specification: AMS 5731 REV L, AMS 5737 REV P  
CHEM ONLY

**Chemical Properties**

Al: 0.2%	B: 0.007%	Bi: <0.00002%	C: 0.04%	Co: 0.08%
Cr: 14.79%	Cu: 0.07%	Fe: BAL%	Mn: 1.7%	Mo: 1.25%
Ni: 24.52%	P: 0.015%	Pb: <0.0001%	S: 0.001%	Si: 0.05%
Ti: 2.29%	V: 0.3%			

Tensile:

Rockwell: 105,000 PSI

JUL 06 2012



RADCLIFF WIRE INC.  
QL073  
  
A70719

Certs/Material

Lisa Piatek

Certification Clerk

The material as shipped is free from mercury contamination

**CERTIFICAT DE RECEPTION 3.1-EN 10204 n°C061485/1**  
**Inspection certificate - Abnahmeprüfzeugnis**

Usine - Works - Werk  
**Stainless & Nickel Alloys**  
**58160 IMPHY FRANCE**  
 Téléphone: 03 86 21 30 00  
 Télécopie: 03 86 21 31 00

**1000489642**

Client Customer Kunde	CENTRAL W UNION	N° de référence Our reference Unser Auftrag Nr.	292457/01
V/Commande Your order Ihre Bestell. Nr.	2009005	du of Von	11.23.10
Spécification Specification Vorschrift	D.3.PRS.010.S RE.A 07/01/09		

Produit Product Erzeugnissform	SY 286 WIRE ROD DIAM/5,5000/MM SS A286 : MELTING ROUTE EF + VAR	Etat de livraison Condition of delivery: Lieferzustand	SOFT ANN/PICKL.
		N° de fabr. Manufact. Nr. Fabrik. Nr.	4100233762
Repère Marking Markierung	Ø (.217")	Poids Weight Gewicht	3591.290 LB
		Nombre Part. Nr. Stückzahl	4 PI

COMPOSITION CHIMIQUE (% poids) CHEMICAL COMPOSITION (% weight) CHEMISCHE ZUSAMMENSETZUNG (% Gewicht)										Coulée N° Heat Nr. Schmelze Nr.
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Co	QL073/12
.04	1.70	.05	.001	.015	24.52	14.79	1.25	.07	.08	
V	A1	Ti	Pb	B1	B1	Fe				
.30	.20	2.29	< .0001	< .00002	.007	bal.				

**CARACTERISTIQUES MECANIQUES ET AUTRES ESSAIS / TESTS RESULTS**

**ETAT DE LIVRAISON**

CONDITION OF DELIVERY

RESISTANCE..... TENSILE STRENGTH.... : 617 MPa 89,488 psi  
 GRAIN ASTM..... SIZE ASTM..... : 6 ASTM

HYPERTREMPE 980°1H EAU+VIEILLISSEMENT 720°16H AIR  
 HEAT TREATMENT OF SPECIMEN 1800°F1H WATER+1325°F 16H AIR

LIMITE ELASTIQUE. YIELD STRENGTH 0.2% : 691 MPa  
 RESISTANCE..... TENSILE STRENGTH.... : 1078 MPa  
 ALLONGEMENT..... ELONGATION SUR 40... : 25.0 %  
 STRACTION..... RED. OF AREA..... : 56.0 %  
 DURETE HB..... HARDNESS..... : 292 HB

**FLUAGE**

STRESS RUPTURE (FST) AT 1200°F (649°C)

UNDER 70,000 PSI (483MPA)

DUREE DE VIE..... TIME..... 136.7 H

JUL 06 2012



RADCLIFF WIRE INC.  
QL073

**A70719**

QUALITY CONTROL	DUPUIS G.	Signature Signature: Unterschrift:	11.29.10 Imphy plant
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Voir page suivante

PAGE N°: 1

**CERTIFICAT DE RECEPTION 3.1-EN 10204 n°C061485/1**  
**Inspection certificate - Abnahmeprüfzeugnis**

**1000489642**

Client Customer Kunde	CENTRAL W UNION	N/Référence Our reference Unser Auftrag Nr.	292457/01
V/Commande Your order Ihre Bestell. Nr.	2009005	du of Von	11.23.10
Specification Vorschrift	D.3.PRS.010.S RE.A 07/01/09		

ALLONGEMENT..... ELONGATION..... 16.0 %

ETAT HYPERTREMPE 900° + VIEILLISSEMENT 720°16H AIR  
HEAT TREATMENT OF TEST SPECIMEN 1650°F 1H WATER+1325°F16H AIR

LIMITE ELASTIQUE. YIELD STRENGTH 0.2%	744 MPA
RESISTANCE..... TENSILE STRENGTH.....	1102 MPA
ALLONGEMENT..... ELONGATION SUR 4D....	19.0 %
STRICITION..... RED. OF AREA.....	58.0 %
DURETE HB..... HARDNESS.....	318 HB

#### FLUAGE

STRESS RUPTURE TEST AT 1200°F (649°C)

UNDER 65,000 PSI(446MPA)

DUREE DE VIE..... TIME.....	158.9 H
ALLONGEMENT..... ELONGATION.....	20.4 %

NO WELDING WITH FILLER METAL HAS BEEN PERFORMED  
STRESS RUPTURE AND AGE HARDENING AND CHEMISTRY TO MEET  
LATEST ISSUE OF AMS 5731L, AMS 5732J, 5734K AND 5737P  
ARCELORMITTAL SNA CERTIFIES THAT THIS MATERIAL HAS BEEN  
MELTED/PRODUCED IN FRANCE, QUALIFYING COUNTRY, AS REQUIRED BY  
DFARS 252.225-7014  
MATERIAL IS FREE FROM MERCURY, RADIUM, OR ALPHA SOURCE  
CONTAMINATION  
THE WILLFUL RECORDING OF FALSE OR FRAUDULENT STATEMENTS ON THIS  
DOCUMENT MAY RESULT IN PUNISHMENT AS A FELONY UNDER FEDERAL  
STATUTES.

JUL 06 2012

RACCLIFF WIRE, INC.  
QL073



A70719

ERIN, ON  
DUMAS, AR  
LANCASTER, SC

519-833-9832 FAX 519-833-2213  
870-382-2980 FAX 870-382-6988  
803-283-3353 FAX 803-283-6303



FOND DU LAC, WI 920-926-0609 FAX 920-926-0652  
UNION, IL 815-923-2131 FAX 815-923-2126  
PERRIS, CA 951-657-2105 FAX 951-943-6081

CENTRAL WIRE  
6509 OLSON ROAD  
TEL: 815-923-2131

THE LEADING MANUFACTURER OF STAINLESS STEEL AND NICKEL ALLOY WIRE PRODUCTS  
EXECUTIVE OFFICES: PERTH, ON CANADA - EMAIL: [sales@centralwire.com](mailto:sales@centralwire.com)

UNION, IL 60180-9730  
FAX: 815-923-2126

## CERTIFICATE OF CONFORMANCE

SOLD  
TO

RADCLIFF WIRE INC.  
P. O. BOX 603  
BRISTOL  
USA

CT 06011-0603

SHIP  
TO

RADCLIFF WIRE INC  
97 RONZO ROAD  
BRISTOL  
USA

CT 06011-0603

1000489642

CUSTOMER'S PO NO.	TYPE OF CERT	CUSTOMER	ORDER NO.	WORK ORDER	DATE SHIPPED
45088	Customer	124610	1172917	2	4133115 4/30/12

SPECIFICATIONS:

### ITEM DESCRIPTION

DESCRIPTION	SPEC. CLASS	HEAT
Forming A286SF SKIN PASSED Bright .0300 200LB.Plas Clean	QL073	
Melt mill Arcelor Mittal Country of origin France	QTY SHIP 367	044

### CHEMICAL ANALYSIS

C .04	MN 1.70	SI .05	P .015	S .001	CR 14.79	NI 24.52
MO 1.25	CU .07	CO .08	AL .20	TI 2.29	FE Balance	B .007
V .30	BI < .00002	PB < .0001				

### MECHANICAL PROPERTIES

AS SHIPPED PROPERTIES:

TENSILE 117.000 KSI MIN	TENSILE 122.000 KSI MAX						
-------------------------------	-------------------------------	--	--	--	--	--	--

AFTER HEAT TREAT PROPERTIES:

--	--	--	--	--	--	--	--

"PASSIVATED IN PROCESS"

JUL 06 2012



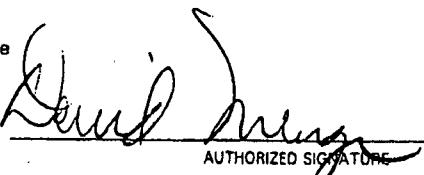
RADCLIFF WIRE INC.  
QL073



A70719

The material as shipped is free from mercury contamination. I certify the chemical analysis and physical and mechanical test results reported above are correct as contained in the records of the company.

Very truly yours,



DAVID J. MENGE

AUTHORIZED SIGNATURE



CARPENTER

Carpenter Technology Corporation  
101 West Bern Street, Reading, Pa. 19601  
Tel.: (610) 208-2000 (800) 338-4592

1000489642

05/23/12  
CUSTOMER/BESTELLER/CLIENT

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER/VERKAUFER/VENDEUR PAGE 2 OF 2

CHERRY AEROSPACE LLC  
PO BOX 2157  
1224 E WARNER  
SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET  
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./Nº DE COMMANDE	CARPENTER NO./WERKS-NR./Nº DE REFERENCIE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO131621	LOS664001 L24962	05/23/12	1468.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE : 565484  
THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

SHERRY L KREIDER  
ADMINISTRATOR - QUALITY  
CARPENTER TECHNOLOGY CORPORATION

MAY 25 2012

AUDIT

Carpenter Corp.  
565484

A70602

Sherry Kreider

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.  
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.  
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

HUNTINGTON ALLOYS CORPORATION  
A Special Metals Company

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

OTHER DIRECT-NOT ASSIGNABLE TO DIS

A-1 WIRE TECH INC  
52800 HIGGINS BLVD  
ELKHART IN 46516

A-1 WIRE TECH  
C/O SMC ACCOUNTS PAYABLE  
1401 BURRIS ROAD  
NEWTON, NC 28658

CERTIFIED MATERIAL TEST REPORT		No.	28150
HA ORDER NO/ITEM 300024020 1	DATE 02/09/12	PAGE 1	OF 2
QUANTITY 10964 LBS	INSPECTED BY HA/SMC		
CHARGE ORDER NO. 32588-1	MARK ORDER NO. 32588-1		
DESCRIPTION OF MATERIAL SHIPPED MONEL ALLOY 400 .3750 IN COIL	HR ROD - COIL PKL ANN COIL		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. B08

\*\*\*\*\*THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.\*\*\*\*\*

SPECIFICATIONS: US FED QQ-N-2810 AM 2 CL A CHEM ONLY\

UNS:N04400

ASTM B 164-03 (2008) CHEM ONLY\

ASME SB-164 2010 EDITION 11 ADDENDA CHEM ONLY\

SAE AMS 4730F CHEM ONLY\NACE MR0175-ISO 15156-3 (2009)\

GE S-400 (10-10-2008)\GE S-1000 (3-2-2010)\

ASME SECTION III 2010 EDITION 11 ADDENDA NCA-3800\

A-1 M400LC MOD FOR CUST 295-01 REV 4-11-08.\

QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125);

EN 10 204/DIN 50049 (TYPE 3.1)

CHEMICAL ANALYSIS (WT. %)

HEAT#	C PB/PPM	MN SN/PPM	FE ZN/PPM	S	SI	CU	NI	AL	P
M49PSBR	0.01 2.8	0.86 4.2	1.51 4.4	0.002	0.16	32.47	64.89	0.03	0.007

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

THE % OF NICKEL INCLUDES A SMALL AMOUNT OF COBALT

TO CONVERT PPM TO WT.% , MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.

MELT METHOD: AIM

APR 10 2012



MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARDNESS	GRAIN SIZE	YIELD STRENGTH 2%PSI	TENSILE STRENGTH PSI	ELONGATION X 100	RATIO %	DEG F
M49PSBR 11	14 PCS		X 100 X 100					

ROOM TEMP-HRB

-AS SHIPPED \*\*\*

54.1

0239 0674

57.6 81.4

GRAIN SIZE-AS SHIPPED AGS ASTM NO.

5.5

NORMAL - TRAN

\*\*\* TENSILE SPECIMEN GAUGE LENGTH - 01.500

## Certified Material Test Report

HEAT/LOT

SOLD TO

Load ID. 00084261

Page 2

1000489642 M49P6BR11

CHERRY AEROSPACE  
 1224 East Warner Avenue  
 Santa Ana, CA 92705  
 USA

SALES ORDER  
 105212 / 3

Date Printed 03/19/2012

CUSTOMER P.O. PO129881-4	CUSTOMER PART M015.1230	QUANTITY 967.00	PIECES 8	SHIPMENT DATE 03/19/2012
-----------------------------	----------------------------	--------------------	-------------	-----------------------------

**PRODUCT:**Alloy:M400LC  
 Diameter:.123"  
 Length:X Coil M315  
 Temper:  
 Finish:Shaved, Soap Drawn  
 7044101-123-00-92

End of Certification

  
 APR 10 2012

M49P6BR11



A7002

Visual and dimensional examination  
 Satisfactory  
 Material, when shipped is free from  
 contamination by mercury, radium,  
 alpha source, and low melting  
 point elements.

This is to certify that all required samplings, inspections, operations and tests performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and accurate. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the above data are in accordance with the specification requirements. The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under federal statute

Suzanne Mullins  
 Quality Assurance Manager

An ISO9001 and AS9100 registered company. OASIS #6111041606

## Customer Parts List

Lot I.D. No.: **87680508**  
Rev: -

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
ASNA0078E402	P	NAS1687	2
ASNA0078E402	P	PS-CMR-3000	R
B0207005M4-02	E	NAS1687	2
B0207005M4-02	E	PS-CMR-3000	R
CAN43078M4-2	8	NAS1687	2
CAN43078M4-2	8	PS-CMR-3000	R
MBBN3012M3202	01/06	MBBN3015	12/03
NAS9307M-4-02	4	NAS1687	2

Parts delivered in accordance with the standard amendments as agreed by Cherry/EADS.

\*\*\* Ref: M7885/4-4-02



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXaerospace.com](http://www.KLXaerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
14	200	EA	MS20601AD4W8		86737839	CHERRY AEROSPACE SAN 11815			

  
Jason Lewis  
Senior Director, Global Quality

05/08/15



**CHERRY®**  
**AEROSPACE**  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



# PACKING LIST

Order No: SO301082 Page: 1  
Order Date: 12/18/06  
Print Date: 07/11/07



Sold-To: 10015341

Ship-To: 19000244

S O L D  T O	M&M AEROSPACE HARDWARE PO BOX 025263 MIAMI, FL 33102-5263 USA
--------------------------------	--

S H I P  T O	M&M AEROSPACE HARDWARE 10000 N.W. 15TH TERRACE MIAMI, FL 33172 USA
--------------------------------	---

Salesperson (s): 110

Purchase Order: 0AS898

Credit Terms: 1%10, 30  
1%10, Net 30

Ship Via: Watkins  
FOB: Origin

## Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0  
IF OVER 150# SHIP WATKINS MOTOR LINE ACCOUNT# 018757 - DO NOT INSURE  
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS  
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

\*\*\*\*\*  
BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114  
\*\*\*\*\*

## GOODS OF UNITED STATES ORIGIN

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
1	CR9162-4-08 Customer Item: MS20601AD4W8	1600 K0604 86737839	EA 13000.0	06/07/07	

TEST REPORTS  
ENCLOSED DO  
NOT DESTROY



**CHERRY®**  
AEROSPACE  
SPS Fastener Division, a PCC Company

Cherry Aerospace  
1224 East Warner Avenue  
Post Office Box 2157  
Santa Ana, CA 92707-0157  
USA



# PACKING LIST

Order No: SO301082  
Order Date: 12/18/06  
Print Date: 07/11/07

Page: 1



Sold-To: 10015341

S O L D  T O	M&M AEROSPACE HARDWARE PO BOX 025263 MIAMI, FL 33102-5263 USA
--------------------------------	--

Ship-To: 19000244

S H I P  T O	M&M AEROSPACE HARDWARE 10000 N.W. 15TH TERRACE MIAMI, FL 33172 USA
--------------------------------	---

Salesperson (s): 110

Credit Terms: 1%10, 30  
1%10, Net 30

Purchase Order: 0AS898

Ship Via: Watkins  
FOB: Origin

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0  
IF OVER 150# SHIP WATKINS MOTOR LINE ACCOUNT# 018757 - DO NOT INSURE  
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS  
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

\*\*\*\*\*  
BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3  
AIRBUS APPROVAL# 30114  
\*\*\*\*\*

GOODS OF UNITED STATES ORIGIN

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
1	CR9162-4-08 Customer Item: MS20601AD4W8	1600 K0604 86737839	EA 13000.0		06/07/07 ( )

TEST REPORTS  
ENCLOSED DO  
NOT DESTROY

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed   
SIM NGUYEN



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	300	EA	MS21075L5		5346033-000	ALCOA KAYNAR FULLERT	15653		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

**Alcoa  
Fastening  
Systems**



Packing Slip



Packing Slip: 9947987921

Page: 1

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
**ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA**

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
09/29/10	F320666	OFZ642			

Line/Rel	Item	QTY	Ord QTY	QTY To Pack
4-1	BG4837	50	50	50
	MF5000-5			725

C/I: MS21075L5N *Rev. 1*

Cust Date: 10/01/10  
Kay Date: 08/31/10

PO Item #:  
\*\*\* TSO C-148 APPVD PART. TSO LABEL REQ'D \*\*\*

Lot: 5346033-000 COO:UNITED STATES

ECCN:9A991 Schedule-B Number:7318.16.0000

Waybill: \_\_\_\_\_

The export classification appears above. You are responsible for all related export license requirements.

CHEM & PHYS & MFG C OF C REQ  
DUAL CERT TO MF5000-5 AND NAS1068AS  
BILL LINE 4,5 & 6 TOGETHER

*Rev. 13*

BUYER: YOLANDA  
5-592-5155

PHONE: 30

Honeywell Source Accepted:

*Christy Wiltjer* K352  
Christy Wiltjer Date 9/29/10

RMRA # (if appl) *QA*

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

*Christopher F. Jackson*  
CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776  
ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

**Alcoa  
Fastening  
Systems**



Packing Slip



Packing Slip: 9947987921

Page: 2

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
**ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA**

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
09/29/10		F320666	OFZ642		

Line/Rel Item U/M QTY Ordered To Pack

\*\*\*\*\* ALLOWABLE SHIPPING TOLERANCE +5%  
0% \*\*\*\*\* CHEM & PHYS & MFG C OF C  
REQ "MUST STATE COUNTRY OF ORIGIN WHERE  
PARTS WERE MANUFACTURED  
ON CERTIFICATION FOR EACH LOT NUMBER" AL  
L ITEMS ON THIS PO MUST  
BE NEW AND TO THE LATEST REV MFGS NAME &  
LOT# MUST APPEAR ON PACKING SLIP ON  
ALL PAPER WORK FOR ALL ITEMS.

\*\*\*\*\*  
IF UNDER 150 # SHIP VIA FED EX GROUND SE  
RVICE: BILL RECIPIENT ACCT:  
0331-0149-0. IF OVER 150 # USE FED X N  
AT'L(WATKINS) ACCT. # 018757.  
CUST REF: MUST BE THEIR PO # "DO NOT PRE  
PAY & ADD TO ANY OF THE ABOVE  
METHODS" & "CONSOLIDATE SHIPMENTS WHERE  
EVER APPROPRIATE" DO NOT SHIP PARTS  
BY ANY OTHER CARRIER THAN THOSE LISTED A

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with  
the contract, drawing specifications, and other applicable documents. All  
required process certifications, chemicals and physical test reports are on file  
subject to examination. This document must not be reproduced except in  
full and relates only to the items tested.

CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

**CUSTOMER'S COPY**

**Alcoa  
Fastening  
Systems**



Packing Slip



Packing Slip: 9947987921

Page: 3

Bill To: 5574  
B/E AEROSPACE, INC.  
P.O.BOX 025263  
MIAMI FL 33102-5263  
USA

Ship To: (14)  
B/E AEROSPACE CONSUM MGMT  
9835 NW 14TH ST  
MIAMI FL 33172  
USA

From:  
ALCOA FASTENING SYSTEMS  
AEROSPACE PRODUCTS  
FULLERTON OPERATIONS  
800 SOUTH STATE COLLEGE  
FULLERTON CA 92831  
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
09/29/10	F320666	OFZ642			

Line/Rel	Item	UOM	Qty Ordered	Qty To Pack
	BOVE, WITHOUT PROPEL			
	WRITTEN AUTHORIZATION FROM M&M			
	chem & phys certs			

# CERTIFICATION

**CERTIFICATE OF CONFORMANCE**  
This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

CHRISTOPHER FREDRICKSON  
Quality Manager  
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

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CUSTOMER'S COPY

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
Fullerton Operations  
800 S STATE COLLEGE BLVD  
FULLERTON, CA 92831

# TEST REPORT

8151105

Lot No.

5346033-000

Supplier Item No. <b>BG4837</b>	Supplier Part No. <b>MF5000-5</b>			
Interchange Part No. <b>MF5000-5</b>	Interchange Part No. <b>MS21075L5 Rev. 1</b>	Interchange Part No. <b>MS21075L5N Rev. 1</b>		
Interchange Part No. <b>NAS1068A5 Rev. 13</b>	Interchange Part No. <b>NAS1068RA5 Rev. 13</b>	Interchange Part No.		
Manufactured Quantity <b>6725</b>	Mfg. Date	Generic Description <b>NUT ANCHOR 2 LUG</b>	Thread Size <b>.3125-24</b>	
HEAT TREAT <b>AMS-H-6875</b>	LUBRICATION <b>AS5272 TY I</b>	NON-DESTRUCT <b>ASTM E1444 SAMPLE</b>	PERFORMANCE	<b>NASM25027</b>
PLATE/COAT <b>QQ-P-416F CL 2 &amp; CL 3 TY II</b>				
Material Spec. # <b>1 AMS 5085-G</b>	Mill Heat No. <b>BTAN1622</b>	Control Heat No. <b>CC16493</b>	Material Supplier <b>CALSTRIP INDUSTRIES INC</b>	
Material Spec. # <b>2 AMS 5085-G</b>	Mill Heat No. <b>B22644</b>	Control Heat No. <b>CC14992C</b>	Material Supplier <b>CALSTRIP INDUSTRIES INC</b>	
Special Process Requirements: <b>THREADS AND GAUGING PER AS8879 AND ANSI B1.3M SYS. 22 MIN EQUALS BKWY MAX EQUALS INST</b>				

## TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST	IN#	1	1	24.65	28.30		6.50	60.00
			7	26.35	27.80			
			15	27.60	29.75			
		2	1	20.35	23.75			
			7	24.75	28.15			
			15	27.70	26.55			
		3	1	21.10	24.50			
			7	25.90	28.30			
			15	28.70	30.10			
		4	1	27.00	27.30			
			7	25.35	26.50			
			15	28.55	32.95			
		5	1	17.55	24.65			
			7	22.20	29.65			
			15	24.40	33.60			
2 - 020 TENSILE TEST	LBS	1	1	7920.00			7390.00	
		2	1	7888.00				
		3	1	7910.00				
		4	1	7867.00				
		5	1	10676.00				
3 - 050 EMBRITTLEMENT	HRS	1	1			Pass		

TEST RESULTS - Continued on next page

**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATED ONLY TO THE ITEM TESTED**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

CHRISTOPHER J. FREDRICKSON QA MGR.

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
Fullerton Operations  
800 S STATE COLLEGE BLVD  
FULLERTON, CA 92831

# TEST REPORT

NO. Page 2 of 3

8151105

Lot No.

5346033-000

Supplier Item No.  
**BG4837**

Supplier Part No.  
**MF5000-5**

## TEST RESULTS - CURRENT TESTED ONLY

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement	
23 HOURS	LBS	2	1			Pass			
		3	1			Pass			
		4	1			Pass			
		5	1			Pass			
		6	1			Pass			
		7	1			Pass			
		8	1			Pass			
		9	1			Pass			
		10	1			Pass			
		1	1	160.00			160.00		
4 - 070 TORQUE-OUT		2	1	160.00					
		3	1	160.00					
		4	1	160.00					
		5	1	160.00					
		1	1	125.00			125.00		
5 - 080 PUSH-OUT	LBS	2	1	125.00					
		3	1	125.00					
		4	1	125.00					
		5	1	125.00					
		1	1	42.00	43.00				
6 - 110 HARDNESS HRC 42-46 (per drawing)	RC	2	1						
		3	1						

Component #	Lot Number	Supplier Part No.	Supplier Item No.
1	<b>5340653-000</b>	<b>MF5000-5FB</b>	<b>BG4842</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
		<b>BASKET</b>	

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
1 <b>AMS 5085-G</b>	<b>BTAN1622</b>	<b>CC16493</b>	<b>CALSTRIP INDUSTRIES INC</b>

Component #	Lot Number	Supplier Part No.	Supplier Item No.
2	<b>5340654-000</b>	<b>MS100 .032 X 1.062 STRIP</b>	<b>082633</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
	<b>07/24/10</b>		

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
1 <b>AMS 5085-G</b>	<b>BTAN1622</b>	<b>CC16493</b>	<b>CALSTRIP INDUSTRIES INC</b>

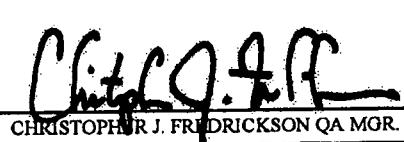
Component #	Lot Number	Supplier Part No.	Supplier Item No.
3	<b>5340665-000</b>	<b>MF5000-5XN</b>	<b>BG4845</b>

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
		<b>NUT ELEMENT</b>	

Material Spec. #	Mill Heat No.	Control Heat No.	Material Supplier
1 <b>AMS 5085-G</b>	<b>B22644</b>	<b>CC14992C</b>	<b>CALSTRIP INDUSTRIES INC</b>

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CHRISTOPHER R. J. FREDRICKSON QA MGR.

**Alcoa**  
**Fastening**  
**Systems**



Aerospace Products  
 Fullerton Operations  
 800 S.STATE COLLEGE BLVD  
 FULLERTON, CA 92831

# TEST REPORT

NO.

8151105

Lot No.

5346033-000

Supplier Item No. <b>BG4837</b>	Supplier Part No. <b>MF5000-5</b>
------------------------------------	--------------------------------------

Component # <b>4</b>	Lot Number <b>5340662-000</b>	Supplier Part No. <b>F0412A5000B1K006500</b>	Supplier Item No. <b>HAL749</b>
-------------------------	----------------------------------	---	------------------------------------

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
-----------------------	-----------	---------------------	-------------

Material Spec. # <b>AMS 5085-G</b>	Mill Heat No. <b>B22644</b>	Control Heat No. <b>CC14992C</b>	Material Supplier <b>CALSTRIP INDUSTRIES INC</b>
---------------------------------------	--------------------------------	-------------------------------------	---

Component # <b>5</b>	Lot Number <b>5303067-000</b>	Supplier Part No. <b>MS100 .055 X 1.125 STRIP</b>	Supplier Item No. <b>084922</b>
-------------------------	----------------------------------	--	------------------------------------

Manufactured Quantity	Mfg. Date <b>02/03/09</b>	Generic Description	Thread Size
-----------------------	------------------------------	---------------------	-------------

Material Spec. # <b>AMS 5085-G</b>	Mill Heat No. <b>B22644</b>	Control Heat No. <b>CC14992C</b>	Material Supplier <b>CALSTRIP INDUSTRIES INC</b>
---------------------------------------	--------------------------------	-------------------------------------	---

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 CHRISTOPHER J. FRIEDRICKSON QA MGR.

CERTIFIED TEST REPORT

Calstrip Steel Corporation

REGISTERED ISO 9001:2000

7140 Bandini Blvd. • Los Angeles, CA 90040-3388  
(323)726-1343 • Fax (323)722-8269

Customer: ALCOA FASTENING SYSTEMS Address: P.O. BOX 1186 PITTSBURGH, PA 15230	Order Number: S60503 / W72920 Customer PO: 220446308 Shipped Date: 07/12/2010 Packlist ID: 98746
Part ID: 082695-CS Description: CR1050 .032 X 8,500' X COIL Drawing #: 082695 Rev #:	Material Spec: AMS 5085C, ASTM A827-02, MS 100 REV.7

HeatID: BTAN1622

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Ni	Cr	Cu	Mo	Resl
0.5090	0.6194	0.0088	0.0064	0.1772	0.0751	0.1082	0.1396	0.0184	
W	V	Sn	Ti	Al	Ca	Zr	Co	N	B
0.0010	0.0206	0.0016	0.0280	0.0021				0.0086	

MECHANICAL AND PHYSICAL PROPERTIES

Yield	Tensile	Elong %	Hardness	Bend Test	Skid Numbers	# of Coils	Weight
			HRB 80	OK	W72920-1 W72920-2	1 1 2	2,616 2,702 5,318

Grain Size	Olsen Test	Spher%	Decarb	Reduct %
8		100	0	

Comment: SOURCE- DUPERCO (USA)

All work on this order has been performed in accordance with the Company's Quality Assurance Manual.

MARIO VARGAS Technical Services

Form #:

Print Date: 7/12/2010

Page: 1

Date Created: Wed Sep 29 21:39:34 2010

Sold To:

CALSTRIP STEEL CORPORATION  
7140 BANDINI BLVD.  
LOS ANGELES, CA

SHIPPER#: 9947987921

Vendor:

DUFERCO FARRELL CORP  
15 ROEMER BOULEVARD  
FARRELL, PA 16121  
Phone:  
Fax:

Ship To:

CALSTRIP STEEL CORPORATION  
C/O OMEGA STEEL INC.  
7140 BANDINI BLVD.  
LOS ANGELES, CA 90040

Coil ID	Sales #	Cust PO#	Part#	Heat #	Weight	Gauge	Width
7519749A	251209	4779CS-4	NOTDEFINED	BTAN1004	18,380	.0321	42.13

## Chemistry Information:

AL .03	C .5153	CA .0017	CB .0029	CR .1089	CU .1404	MN .7289
MO .0188	N .0074	NI .0757	P .009	S .0017	SI .1749	SN .0178
TI .0019	V .0009					

Coil ID	Sales #	Cust PO#	Part#	Heat #	Weight	Gauge	Width
7519749B	251209	4779CS-4	NOTDEFINED	BTAN1004	18,700	.0321	42.13

## Chemistry Information:

AL .03	C .5153	CA .0017	CB .0029	CR .1089	CU .1404	MN .7289
MO .0188	N .0074	NI .0757	P .009	S .0017	SI .1749	SN .0178
TI .0019	V .0009					

BOL	# Coils	Date	Type	Carrier	Vehicle #
618322	2	2010-06-09	Rail	NORFOLK AND SOUTHERN RAIL	NS165691

Coil ID	Sales #	Cust PO#	Part#	Heat #	Weight	Gauge	Width
7519800A	251207	4779CS-3	NOTDEFINED	BTAN1622	17,890	.0311	42.13

## Chemistry Information:

AL .028	C .509	CA .0021	CB .0033	CR .1082	CU .1396	MN .6194
MO .0184	N .0086	NI .0751	P .0088	S .0064	SI .1772	SN .0206
TI .0016	V .001					

Coil ID	Sales #	Cust PO#	Part#	Heat #	Weight	Gauge	Width
7519800B	251207	4779CS-3	NOTDEFINED	BTAN1622	18,390	.0311	42.13

## Chemistry Information:

AL .028	C .509	CA .0021	CB .0033	CR .1082	CU .1396	MN .6194
MO .0184	N .0086	NI .0751	P .0088	S .0064	SI .1772	SN .0206
TI .0016	V .001					



**DUFERCO FARRELL CORP.**  
15 ROEMER BOULEVARD  
FARRELL, PA 16121  
PHONE: 724-452-2614

06/23/2010 13:09  
CSTMS105  
Page 3 of 3

**CERTIFICATE OF TEST FOR COIL 7519590B HEAT# BTAN1522**

<b>SHIP TO:</b> CALSTRIP STEEL CORPORATION 7140 SAWHORN BLVD. LOS ANGELES, CA 90040	<b>ORDER SPECIFICATIONS</b> <b>CUSTOMER PO:</b> 4778CJ-3 <b>PRODUCT DESCRIPTION:</b> TOWER <b>PRODUCT TYPE:</b> CR <b>PRODUCT NUMBER:</b> 100 <b>DISPATCH NUMBER:</b> 100 <b>DISPATCH DATE:</b> 2011-06-01 <b>DISPATCH TIME:</b> 10:00 AM <b>DISPATCH FIRM:</b> CALSTRIP STEEL CORP. <b>DISPATCH FIRM TEL:</b> +1213-222-0000 <b>DISPATCH FIRM FAX:</b> +1213-222-0000 <b>DISPATCH FIRM E-MAIL:</b> <a href="mailto:">[REDACTED]</a> <b>DISPATCH FIRM WEB:</b> <a href="http://[REDACTED]">[REDACTED]</a> <b>DISPATCH FIRM PHONE:</b> +1213-222-0000 <b>DISPATCH FIRM FAX:</b> +1213-222-0000
<b>SHIP TO:</b> CALSTRIP STEEL CORPORATION C/O OMEGA STEEL, INC. 7140 SAWHORN BLVD. LOS ANGELES, CA 90040	<b>ITEM:</b> 20222030 <b>INDUSTRY SPEC:</b> METAL ALM <b>CUSTOMER SPEC:</b> <b>CUSTOMER PART #::</b> CR-7A-2 <b>CUSTOMER NOTE:</b>

JOB #: COIL #: SIZE: WGT: HARDNESS:  
 251207-01 75196000 0311 x 42.0000 17800 05-30T  
 7519600A 0311 x 42.0000 18350  
 7519600B 0311 x 42.0000 18350  
 HEAT# BTAN1622 C: .51 - MN: .02 - P: .009 - S: .006 - SI: .177 - AL: .028 - CL: .140 - NR: .075 - CR: .108 - NC: .018 - SN: .021 - TC: .002 - V: .001 - NR:

JOB # COL # SIZE WGT  
251207-01 7519800A .0311 x 42.0000 17.690  
HEAT# BTAN1522 C: .51 - MNF: .62 - P: .009 - S: .006 - ST: .177 - AL: .028 - GU: .140 - NC: .075 - CPC: .108 - MC: .016 - SN: .021 - TI: .002 - V: .081 - NC: .003 - NC: .0086 - BL: \* - CA: .0021 - CE: \* - ZP: \* - AS: \* - SB: \*

Date Created: Wed Sep 29 21:39:34 2010

SHIPPER#: 9847987921

Elements with a reported value of “ ” were undetected, and thus are less than 0.01%.

Manufactured in the United States of America

DUFERCO FARRELL CORPORATION certifies that the material listed herein has been tested in accordance with the methods prescribed in the governing specifications. Based upon the results of such testing, the material conforms to the specifications. All testing has been performed using the current revision of the testing specifications.

Dato F Sikkens  
Supervisor - Metallurgical Lab

Dale F. Stidham  
Supervisor - Metallurgical Lab

**CERTIFIED TEST REPORT****Calstrip Steel Corporation**

7140 Bandini Blvd. • Los Angeles, CA 90040-3388  
 (323)726-1345 • Fax (323)722-8269

Customer: ALCOA FASTENING SYSTEMS Address: P.O. BOX 1186 PITTSBURGH, PA 15230	Order Number: S46436 / W57773 Customer PO: 220351001 Shipped Date: 10/31/2008 Packlist ID: 78584
Part ID: 084995-CS Description: 1050 ANN .055 X 8.250 X COIL Drawing #: 084995 Rev #:	Material Spec: 1050 AMS 508SG & MS100 REV. 7, ASTM A827-02

HeatID: B22644

**CHEMICAL ANALYSIS**

CC14992C

C	Mn	P	S	Si	Ni	Cr	Cu	Mo	Resi
0.5000 ✓	0.7800 ✓	0.0120 ✓	0.0020 ✓	0.2100 ✓		0.0400 ✓	0.0100 ✓		
W	V	Sn	Ti	Al	Ca	Zr	Co	N	B
0.0020	0.0040	0.0030	0.0250	0.0020			0.0052	0.0003	

**MECHANICAL AND PHYSICAL PROPERTIES**

Yield	Tensile	Elong %	Hardness	Bend Test
			HRB 79 ✓	OK
Grain Size	Olsen Test	Spher%	Decarb	Reduct %
8 ✓		100	0	

Comment: SOURCE- ARCELOR MITTAL (USA)

Skid Number	# of Coils	Weight
W57773-1	1	1,732
W57773-2	1	2,082
	2	3,814

11-03-08 M224

All work on this order has been performed in accordance with the Company's Quality Assurance Manual.

MARIO VARGAS      Technical Services

Form #

Print Date: 10/31/2008

Page: 3

## ADVANCE SHIP NOTICE

1181305

ArcelorMittal Riverdale Inc.

TEV.

DATE SHIPPED

D

09/26/2010

BILL OF LADING NO.	CARRIER	CARRIER TRAILER NO.	ARRIVAL DATE
01181305	MITTAL RIVERDALE	CSP716	
FREIGHT PAYMENT		NET WEIGHT	TARE WEIGHT
COLLECT		15330 LBS	
SHIP TO	1001026-001		
NADACO STEEL INC C/O NADACO STEEL PROCESSING 429 WEST 137TH STREET CHICAGO, IL 60629			
ATTENTION: NANCY DOLKOWSKI			
ITEM	DESCRIPTION		
OUR ORDER: 387437	YOUTH P.O.: 09344	FOB: FOB Mill	
003 EX0904250-01	ALT P.O.:		46560 LBS / 1 Coil
0.0300 INCH -0.0050/+0.0020 X 48.5000 + 1.2250 MM (IN)			
ID 0.0/0.0 OD C 0/0.0 (IN)			
Ext. Land Length Prime Carbon 1050			
C/R/A			
END USE: EXCESS WHT			
COIL 769426			
LOT NBR	W.O. # QUANTITY IN		
E22644 ✓	46360 LBS / 1 Coil		
----- CERTIFICATION -----			
TEST CLASS	LOT NBR	PROPERTIES	
Chemical:	E22644	C Mn P S I Cr Ni	
		0.50000 0.72000 0.01200 0.00200 0.21000 0.01000 0.0000	
		Cr Mo Si Al V Cd Ni	
		0.01000 0.00000 0.00400 0.02500 0.00200 0.00000 0.0052	
		B Zr Ti Sn Ca O	
		0.00030 0.00000 0.00300 0.00000 0.0020	
----- DETAIL -----			
TAG NBR	W.O. # LOT NBR GAUGE(IN)	WIDTH(IN)	QUANTITY IN
769426	E22644 0.0910	48.1564	46360 LBS
			46560 LBS

Report ID:  
Version 1.0  
12/18/2017

## CERTIFIED REPORT OF CHEMICAL ANALYSIS AND MECHANICAL TESTS

SOLD TO		VENDOR																		
NADACO STEEL INC. C/O NACHE STEEL PROCESSING 429 WEST 127TH STREET CHICAGO IL		Mittal Steel Riverdale 15500 South Party Avenue Riverdale, IL 60827																		
SHIP TO		ORDER INFORMATION																		
NADACO STEEL INC. C/O NACHE STEEL PROCESSING 429 WEST 127TH STREET CHICAGO IL		PORT: 08944 SOE: 357457 Shipped: 5/18/2008	Invoice #: 0500018469 Carrier: MITTAL RIVERDALE																	
DIMENSIONAL INFORMATION																				
Code	Thickness (in)	Width (in)	Weight (pounds)	End Use	Percent (%)															
769420	0.090	48.500	22.3	EXCESS	22.34% (24.1)															
PRODUCT INFORMATION																				
Category	Part Number	Comments																		
1030	H00904850-01																			
<small>We certify that the material above has been tested in the "as received" condition. This report was issued at the request of the USA, PE, MICHIGAN and WISCONSIN DIVISIONS of IncoSteel Corp., Company Control No. E. Date: 10/10/2017.</small>																				
MECHANICAL / PHYSICAL TEST RESULTS																				
Code	Tensile	Impact	Sp. El.	Brinell	Yield Strength	Hardness	Fracture	Creep	Thermal	Other										
P22644	50	75	317	602	21	.01	00	.04	20	1000	202	525	0032	.004	.0003	.0003	.0003	.0003	.0003	
CHEMICAL TEST RESULTS																				
Metal	C	Mn	P	S	S	Cr	Ni	Cu	Mo	Cr	V	N	H	Sn	S	Ti	Ge	Mo	O	H
P22644	.50	.75	.317	.602	.21	.01	.00	.04	.20	.1000	.202	.525	.0032	.004	.0003	.0003	.0003	.0003	.0003	

We hereby certify the above is correct as contained in the record of the corporation.



Peter Gaudreau



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
7	1000	EA	NAS1149D0563J		V7583	ANILLO INDUSTRIES		10630	

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

**ANILLO Industries, Inc.**

2090 NORTH GLASSELL STREET, ORANGE, CA 92865-3391 USA  
 PLEASE REMIT TO  
 P.O. BOX 5586 ORANGE, CA 92863-5586 USA  
 (714)637-7000 (562)924-6632 FAX(714) 637-3022

**501585****Packing List &****Certification**

WE ACCEPT

VISA/MASTER/DISCOVER/AMEX

**SOLD TO****1165****E**

B/E AEROSPACE, INC.  
 ATTN: ACCOUNTS PAYABLE DEPT.  
 P.O. BOX 025263  
 MIAMI, FL 33102-5263

**SHIP TO**

B/E AEROSPACE, INC.  
 CONSUMABLES MANAGEMENT  
 9835 NW 14TH ST  
 MIAMI, FL 33172

DATE ORDER REC'D	ORDER NUMBER	INVOICE DATE	SHIPPED VIA	TERMS
<b>05/06/2011</b>	<b>OYL616</b>		<b>FED X GROUND</b>	<b>1% 10 DAYS, NET 30</b>
ITEM	ORDERED	SHIPPED	DESCRIPTION	NET WEIGHT

1 125,000 **NAS1149D0563J**  
 REV 4 /LOT#V7583/V7644 /QCR:1,4,6,8,15,16,  
 ECCN: 9A991 Schedule B#: 7616.10.8000 COO: US NLR



We certify that: 1. item number 1 above is manufactured in accordance with the material and processing specifications of this order.  
 2. We certify that the material on this order conforms in all respects to the current applicable government and/or manufacturer's specification. Test reports are on file and are available for examination on all Anillo manufactured parts. All claims for errors or shortages must be made within 10 days after receipt of goods.  
 No good to be returned without written authorization. All claims for defective material must be filed within 30 days of shipment to receive consideration. We do not assume financial responsibility or liability from the use of products sold, other than the replacement value of the products sold, if claimed within the specified time limit above.

&lt;&lt; R.M.A.# REQUIRED FOR RETURNS &gt;&gt;

**Certification**

STAMP

DATE 6/10/11

LOT V7583=120256/V7644=4744

BY Ben Omidwar  
 Ben Omidwar, Quality Assurance Manager

FI 4.03.05

Drawing File Name: 23309

Page 1 of 1

## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specific items forming a part of the description and that samples representative of the material met the composition items and had the mechanical properties shown on the face of this sheet.

*Mary J. Vrabec*  
Mary J. Vrabec  
Director of Manufacturing Davenport Works

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, PA

Page 1

952247  
Ship Date 0  
2008-08-19 B/L No. 3069782  
P.O. No./Govt Contract No. 40222547

Invoice No. 00000 Alcoa No. 5199165-1  
Customer Mfg. Order  
BOEING-TMX DT-99165-1

Ship To: THE BORING COMPANY  
TMX AEROSPACE DIVISION  
12023 CARMENITA ROAD  
UNIT F  
SANTA FE SPRINGS 90670 CA

Item Description  
0.063-IN TK (+.003 -.003) X 48.0 IN W 1+.046875  
.046875) (N) A/T ALCLAD 2024-T3 COILED SHEET MILL FINISH 005699-  
7.-AMS-QQ-A-250/5 REV A IS 2007 AS9103 D6-  
.824499 REV D ((MARKED)) LIGHTLY OILED COIL  
SIZE8: ID 26 IN OD MAX 48 IN  
MAX GROSS SKID WGT: 7500 LB QUAN TOL +/- .10  
CQR 0108580 REV 08 CUST REQ 08-08-  
18 \*\*\* N/E (8-08-23 \*\*\*

Num	Package	Ticket	Lot	Weight	Quantity	UOM	Pc Id/Serl
1	669469-		711091-	5640	1	PC	
2	669935-		711092-	5551	1	PC	
3	669937-		711092-	5531	1	PC	
4	670307-		711093	5166	1	PC	
				21.888	1		

NOTES FOR CQR: 0108580.8  
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/5 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/5F, AMENDM ENT 2.  
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/5.

CQR: 0108580.8 -Specification Limits

Temp	Dir	UTS ksi	TYS ksi	EL40D		Other Other	Each	Total	Aluminum
				PCT	PCT				
T1	Long Transv.	Max	40.0	15					
		Min	61.0						
Chemical Composition		Max	ST	PE	CU MN MG CR ZN TI	REMAIN			
Alloy 2024		Max	0.50	0.50	4.0 0.9 1.8 0.10 0.25 0.15 0.05 0.15				
		Min			3.0 0.30 1.2				
Chemical Composition		Max	SI+FE	CU MN MG V ZN TI	Other				
LINER		Max	0.70	0.10 0.05 0.05 0.05 0.10 0.03 0.03	Each	Aluminum			
Alloy 1230		Min			99.30				

NAP1149D0563J  
V7583

AMCO  
31  
INSPECTED

## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Mark J. Vrablec  
Director of Manufacturing Davenport Works

Kerton P. Young  
Quality Assurance Manager

## Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA

952247	0	B/L No.	Invoice No.	Alcoa No.	Item	Page
2008-08-19	3039782		00000	5199165-1		2
P.O. No./Govt Contact No.			Customer Mfg Order			

PJ1254

BOEING-TMX DT-99165-1

CQR: 0108580.8 -Specification Limits (cont.)

Lot: 711091 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	Test	No->	UTS	TYS	BL4D
				KSI	KSI	PCT
T3	Long Transv.	2		63.5	43	19.5
				63.9	43.2	19

Cast Number	Chemical	OES	SI	FE	CU	MN	MG	CR	ZN	TI	No->	UTS	TYS	BL4D
												KSI	KSI	PCT
H9696083	Actuals	0.07	0.15	4.7	0.64	1.5	0.00	0.12	0.03					

Lot: 711092 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	Test	No->	UTS	TYS	BL4D
				KSI	KSI	PCT
T3	Long Transv.	2		64.2	43.3	19
				63.7	43.4	19

Cast Number	Chemical	OES	SI	FE	CU	MN	MG	CR	ZN	TI	No->	UTS	TYS	BL4D
												KSI	KSI	PCT
H9696084	Actuals	0.07	0.15	4.7	0.66	1.5	0.00	0.12	0.03					

Lot: 711093 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	Test	No->	UTS	TYS	BL4D
				KSI	KSI	PCT
T3	Long Transv.	2		64.4	43.4	19.5
				64.5	43.8	19

Cast Number	Chemical	OES	SI	FE	CU	MN	MG	CR	ZN	TI	No->	UTS	TYS	BL4D
												KSI	KSI	PCT
H9694076	Actuals	0.06	0.16	4.5	0.65	1.5	0.00	0.11	0.03					

This material was melted in the United States or a Qualifying Country (RGF UGARS 225.872.1(b)); it was manufactured in the United States.

NAA1149 DDS635

V7583



# Certification

Alpha Film Corporation, Inc.  
2000 North Cypress St.  
Orange, CA. 92865-3361  
(714) 637-9110

This is to certify that the below listed parts were processed per the applicable specification listed below.

Test reports and procedures governing this process are on file and subject to examination.

## CHEMICAL FILM MIL-DTL-5541

Type	Class	Thickness	Revision
I	3		F

Job Number: V7583      Quantity: 378,800      Visual: Y

Part Number: NAS1149 D 0563 J      Adhesion: N

Description:

Date: 09/23/2010

Authorized by: Maria r.

Stamp:



FORM # 4.09.117 REV A 05/19/09



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 650 LONGBEACH BLVD, STRATFORD, CT 06615

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: AIR INUIT LTD**

**PURCHASE ORDER#: M111306**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	Eff Date	EXP DATE
1	10	EA	06DU08		M11A		

  
Jason Lewis  
Senior Director, Global Quality  
05/08/15



## CRESCENT MANUFACTURING CO.

P.O. BOX 1350  
BURLINGTON, CT 06013-1350  
(860) 673-2591



## CRESCENT MANUFACTURING CO.

700 GEORGE WASHINGTON TURNPIKE  
BURLINGTON, CT 06013  
MADE IN U.S.A.

PAGE 1

Order# 49536

**S**OLD  
**D**TO M&M AEROSPACE HDW  
PO BOX 025263  
MIAMI, FL 33102-5263

CUST. PO. NO. 082813

**S**HIP  
**T**O M&M AEROSPACE  
10000 NW 15TH TERRACE  
MIAMI, FL 33172

(BS)

COL363159 NO OVER 200+ WA

P 31

ORDER DATE	CUST. NO.	CUST. PO. NO.	SHIP VIA	
12/22/05	11610	082813	UPS COLLECT	
LINE NO.	ITEM NO./DESCRIPTION	LOCATION	QTY SHIP	QTY PICKED
10	25 MS51957-45B 8-32 X .500 PH PAN SS BLACK OXIDE	003778	0	25 25m
11	CHEM & PHYS TEST REPORT	1e13n 1e12n CWN 14L30L KNSX04691		2Bm

PACKING LIST

38231

Nº 38231

# CERTIFICATE OF COMPLIANCE TEST REPORT

MADE IN THE U.S.A.

CUSTOMER NAME M&M AEROSPACE HDW  
PART NO. MS51957-45B REV D

PURCHASE ORDER NO. OB2813  
QUANTITY TWENTY FIVE THOUSAND  
MATERIAL/SPECIFICATION 144 302HQ CINCINNATI KNSX04691  
DATE 1/31/2006

## PHYSICAL PROPERTIES

TENSILE STRENGTH	HARDNESS	SCALE
1) 1588.9 LB T	1)	
2) 1589.3 LB T	2)	
3) 1589.8 LB T	3)	
4) 1616.6 LB T	4)	
5) 1579.0 LB T	5)	
6)	6)	
7)	7)	
8)	8)	

CONFORMS TO THE PROCUREMENT SPECIFICATIONS OF:

FF-S-92B

## OTHER MECHANICAL TEST DATA

MEET MAGNETIC PERMEABILITY  
REQUIREMENTS OF FF-S-92B AND MIL-I-17214B

PARTS ARE FREE FROM MERCURY CONTAMINATION.  
VISUAL AND DIMENSIONAL INSPECTION SATISFACTORY

## OTHER TESTING:

## FINISH

BLACK OXIDE PER MIL-DTL-13924D CL4

ADDITIONALLY, AN ANSI/ASQC Z 1.4 SAMPLE OF THE  
FINISHED FASTENERS WERE TESTED IN ACCORDANCE WITH  
APPLICABLE SPECIFICATIONS. SAMPLE PARTS AND THE TEST DATA  
ARE IN OUR RECORDS RETENTION AREA AS OBJECTIVE EVIDENCE  
AND WILL BE HELD AS REQUIRED.

CRESCENT MANUFACTURING HOLDINGS, LLC  
ISO 9001 : 2000 REGISTERED # 48791-1



Signature

Cage Code #63020  
700 George Washington Turnpike, Burlington, CT 06013, U.S.A.  
Telephone: (860) 673-2591 Fax: (860) 673-5973



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLXAerospace.com](http://www.KLXAerospace.com)

Shipped From: 650 LONGBEACH BLVD, STRATFORD, CT 06615

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP. DATE
17	50	EA	MS51957-45B		38231	CRESCENT MFG.	63020		

  
\_\_\_\_\_  
Jason Lewis  
Senior Director, Global Quality

05/08/15



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191  
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR  
[www.KLxaerospace.com](http://www.KLxaerospace.com)

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

### Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

**FIRM: DART AEROSPACE LTD**

**PURCHASE ORDER#: PO28407**

LNB#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
5	10	EA	NAS43DD3-128FC		0081288	MINI MAC	8X408		

  
Jason Lewis  
Senior Director, Global Quality

05/08/15

**Mini-Mac, Inc.****Packing Slip**

**Ship To**  
1703 Southwest Blvd  
Wichita, KS 67213  
**Mail To**  
P.O. Box 286  
Derby, KS 67037  
Phone (316) 733 - 0661  
Fax (316) 733 - 4250  
Fed Tax ID 48-0768147

Page 1

**Sold To**

B/E Aerospace, Inc.  
P.O. Box 025263  
Miami, FL 33102-5263

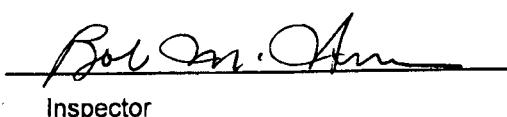
**Shipped To**

B/E Aerospace, Inc.  
9835 NW 14th Street  
Miami, FL 33172

Freight Collect	COD Charge	Insured Value
UPS / Acct# 363159		
Date Shipped	Your Order No.	Packing Slip No.
07/03/13	OJVH88	0081288
Quantity	Description	
12,500 EA	NAS43DD3-128FC Rev 12 Mat Lot No: 052013 Plate: 6052 Prod Lot#: 0081288	
1 EA	CERT CHARGE Prod Lot#: 0081288	

**Certificate of Conformance**

We hereby certify that the materials covered by this certification meet the applicable requirements of this order, drawing, and/or specification. Supporting evidence is on file for examination.

  
\_\_\_\_\_  
Inspector

# KAISER ALUMINUM FABRICATED PRODUCTS

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
6573 W. WILLIS ROAD  
CHANDLER, AZ 85226

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

3003  
LOT NO.

053013

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:				
724368-1		312X 049		Seamless Tube/Pipe				
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:			
212322	001	02/22/2013	F00138143	2024	T3			
WEIGHT SHIPPED:	QUANTITY:	BL NUMBER:	DIAM/DAF/THICKS:	WIDTH:	LENGTH:			
1554.000 LB	2644.000 PCS	213243			12.000 FT			
SHIP TO:		SOLD TO:						
FUTURE METALS INC 3761 NEW YORK AVE. SUITE 100 ARLINGTON, TX 76014 USA		FUTURE METALS INC PO BOX 28450 TAMARAC, FL 33320 USA						

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONTRACT	BEND
F00138143	0001	1	70.5	48.2	14.5	N/A	N/A	N/A
F00138143	0002	1	71.4	49.8	22.0	N/A	N/A	N/A
F00138143	0003	1	69.5	48.2	26.0	N/A	N/A	N/A
F00138143	0004	1	71.5	51.4	17.0	N/A	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ra	Tot
Maximum	0.50	0.50	4.90	0.90	1.80	0.10	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.00	0.00	3.80	0.30	1.20	0.00	0.00	0.00	NA	NA	NA	0.00	0.00
D37417	.09	.17	4.71	.78	1.30	.01	.11	.03	.00	.00	.01	.01	.02
D37416	.10	.19	4.53	.75	1.38	.01	.13	.03	.00	.00	.01	.01	.02

### Applicable Requirements:

Description: OD: 0.312"; Wall: 0.049"; Round 6  
AMS-4088K AMS-WW-T-700/3A WW-T-700/3F  
No Weld Repair. Mercury Free.

### Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

716180 716177  
716181 716178  
716179

### CERTIFICATION

CHEKED

*[Signature]*  
Future Metals, LLC

Plant Serial: 00014745  
Kaiser Order Number: 212322  
Line Item: 001

REVIEWED

Accept  Reject   
Date 5-28-13 Name Lee Hailey

Page 1 of 2

Future Metals  
3751 New York Ave. Suite 100 Arlington, TX 76014

#### Certificate of Conformance

This certifies that material, parts, and/or assemblies covered by this report have been inspected and accepted to the applicable specifications in accordance with the requirements of the customers Purchase Order. Results of all inspections, chemical and physical tests, as well as evidence, which shows acceptability of raw materials, parts and/or assembly as other components are on file and available for inspection.

*Lee Hailey*  
Quality Control Representative  
Lee Hailey

TR# 716181

Customer Name  
MINI-MAC INC

Additional Info

Customer P.O.

5959

Qty

6000'

Pieces  
500

Shipper Number  
TX19374D  
Date  
20 May 2013

# Accurate Anodizing Inc.

P.O. Box 5207  
 1801 W. El Segundo Blvd.  
 Compton, CA 90224  
 Phone: (310) 637-0349 Fax: (310) 637-6099

*Specializing in*  
**MIL-A-8625 Type II and MIL-DTL-5541**  
**ISO 9001:2008 CERTIFIED**

## Certification/Packing Slip

Date	Invoice #
6/26/2013	60578

Bill To
MINI-MAC, INC. P.O. Box 286 Derby, KS 67037

Ship To
MINI-MAC, INC. 1703 SouthWest Blvd. Wichita, KS 67213

Ship	P.O. Number	Via	Terms	Due Date
6/26/2013	6052	Estes	NET 30	7/26/2013

Quantity	Units	Description	Misc.
46 LBS		Part: NAS43DD3-112FC Pieces: 6500 Containers: 1 Process: Chem-filmed per MIL-DTL-5541F Type 1 Class 1A (Meets and Supersedes MIL-C-5541E Class 1A). BLUE	19. MIN LOT
105 LBS		Part: NAS43DD3-128FC Pieces: 13000 Containers: 2 Process: Chem-filmed per MIL-DTL-5541F Type 1 Class 1A (Meets and Supersedes MIL-C-5541E Class 1A). BLUE  Subtotal Waste Treatment Surcharge	20.

REVIEWED

Accept  Reject   
 Date 7-1-13 Name Bob

ACCURATE ANODIZING CERTIFIES THAT THESE PARTS WERE PROCESSED IN ACCORDANCE WITH THE PROCESSES OR SPECIFICATIONS LISTED ABOVE. FINISH REQUIREMENTS, THAT ARE NOT REQUIRED TO BE TESTED DIRECTLY, ARE CONTROLLED THROUGH STATISTICAL MEANS AND MONTHLY TESTING; ACCURATE ANODIZING ASSUMES NO RESPONSIBILITY FOR FAILURES RESULTING FROM NORMAL STATISTICAL VARIATION.

Approved by Quality Assurance:

Received By / Date:

# KAISER ALUMINUM FABRICATED PRODUCTS

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
8573 W. WILLIS ROAD  
CHANDLER, AZ 85226

## CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

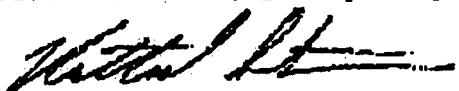
3003  
Lot No.

052013

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Nathaniel Stevens, Quality Manager



### CERTIFICATION

PACKED  
  
Future Metals, LLC

Plant Serial: 00014745  
Kaiser Order Number: 212322  
Line Item: 001

REVIEWED

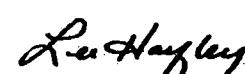
Accept  Reject   
Date 5/28/13 Name 

Page 2 of 2

Future Metals  
3751 New York Ave. Suite 100 Arlington, TX 76011

### Certificate of Conformance

This certifies that material, parts, and/or assemblies covered by this report have been inspected and accepted to the applicable specifications in accordance with the requirements of the customer's Purchase Order. Results of all inspections, chemical and physical tests, as well as evidence, which shows acceptability of raw materials, parts and/or assembly as other components are on file and available for inspection.



Quality Control Representative  
Lee Hailey

TM 716181

Customer Name  
MINI-MAC INC

Additional Info

Customer P.O.  
5959

Qty  
6000'

Pieces  
500

Skipper Number  
TX19574D  
Date  
20May2013